



# CITY OF LODI

## COUNCIL COMMUNICATION

**AGENDA TITLE:** Adopt resolution authorizing the City Manager to execute two agreements that will provide for the transition from the expiring PG&E Interconnection Agreement (IA) with the City of Lodi (EUD) for the provision of transmission and ancillary services to the California Independent System Operator (CAISO) being the new provider with the Northern California Power Agency (NCPA) acting as Lodi's agent: 1) NCPA Schedule Coordination (SC) Service Agreement between the City and NCPA; 2) PG&E Replacement Interconnection Agreement (RIA) with PG&E and NCPA and other City members (EUD)

**MEETING DATE:** August 21, 2002

**PREPARED BY:** Electric Utility Director

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**RECOMMENDED ACTION:** That the City Council adopt a resolution authorizing the City Manager to execute with the City of Lodi the following two agreements: 1) NCPA Schedule Coordination (SC) Service Agreement between the City and NCPA; 2) PG&E Replacement Interconnection Agreement (RIA) with PG&E and NCPA and other City members.

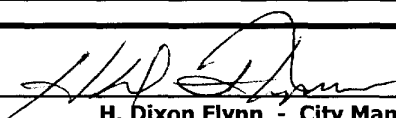
**Background Information:** A number of agreements need to be executed by the City and Northern California Power Agency (NCPA) on behalf of the City of Lodi in the coming weeks and months to replace the Pacific Gas and Electric Company (PG&E) Electric Transmission Interconnection Agreement (IA). The IA terminates on September 1, 2002. The new set of agreements will continue to provide the City the capability to connect City-owned and contracted generation resources located outside the City limits to the City's electric load.

The new set of agreements will have a number of signatories including NCPA, NCPA member cities including the City of Lodi, PG&E and the California Independent Systems Operator (CAISO), the successor transmission system operator that replaced PG&E after the electricity market deregulation in California in 1998. The combination of the two agreements listed below will allow the City to operate with reasonable operational and cost certainty in the CAISO environment upon the termination of the PG&E IA.

City of Lodi has obtained this service from PG&E for decades, and has relied on the PG&E Transmission System since the 1920s. The City along with other NCPA member Cities are signatories of the PG&E IA since 1983, which provides, among other things, transmission inter-connection services between City load and City-owned NCPA generation projects.

In July 1997, PG&E exercised its three-year notice right to terminate the IA, which would have resulted in a termination date of August 2000. A number of interim agreements extended the IA past August 2000. In August 2001, PG&E unilaterally filed with the Federal Energy Regulatory Commission (FERC) its proposed replacement IA (RIA) to be effective April 1, 2002. The RIA filed by PG&E provides basic protocols to physically connect loads and generation resource to the transmission grid, but defers to the CAISO to provide the transmission and control area services required by the City and other NCPA member cities. NCPA's request to FERC delayed the effective date of PG&E's proposed RIA to September 1, 2002 and convened a number of technical conferences with NCPA, PG&E and the CAISO to facilitate the negotiation of an acceptable replacement arrangement by September 1, 2002.

**APPROVED:** \_\_\_\_\_

  
H. Dixon Flynn - City Manager



## CITY OF LODI

## COUNCIL COMMUNICATION

Since September 2001 with input from City staff and other member Cities, NCPA has been negotiating with the CAISO to develop a transmission arrangement that is well adapted for load serving entities like the City of Lodi. The Aggregated Metered Subsystem Operator (MSSO) Agreement now negotiated with the CAISO meets the City's needs at this time. The replacement to the IA negotiated with the CAISO will result in the City load and City-owned generation being treated as a Metered Sub-System (MSS) in the CAISO operated electric transmission system with NCPA becoming an Aggregated Metered Sub System Operator (MSSO).

**Key** aspects of the MSS/MSSO agreement is briefly outlined below:

- Provides for load following capability with NCPA-owned generation, whereby the City balances load and resources in real time and avoids the CAISO volatile real time market prices. This also enables the City to avoid certain CAISO overhead charges.
- Without the MSS/MSSO, Lodi EUD costs for ancillary and transmission services could be 20% higher than the cost of the new CAISO charge (\$200,000 to \$300,000 above anticipated costs).
- Local generation, within City limits, will not be subject to CAISO transmission charges when plant output does not exceed City load. This retains the incentive to site generation within the City.
- City of Lodi/NCPA retains local control over City of Lodi/NCPA-owned generation resource. That is, the CAISO may not dispatch these units unless NCPA decides to participate in the CAISO operated markets for energy and ancillary services.
- If the City maintains its full generation capacity and reserve requirements to meet its load, the City will not be required to participate in any "economic" blackouts which may occur in northern California due to other utilities' failure to procure sufficient capacity to meet their loads.

Staff recommends that Council authorize the City Manager to execute on behalf of the City the following two agreements to ensure a reliable transmission interconnection:

1. NCPA Schedule Coordination (SC) Service Agreement between the City and NCPA (Provides a basis for NCPA to operate for members and for members how they will be accommodated under the CAISO through NCPA);
2. PG&E Replacement Interconnection Agreement (RIA) between PG&E, NCPA, and NCPA member Cities including Lodi (provides a formal transition from old IA to new situation for PG&E).

The schedule for the action is tight with all NCPA members scheduled to approve the two agreements by September 1, 2002. The two agreements are attached in final form and are recommended for execution by the City Manager at this time.

If Lodi does not voluntarily execute these agreements, the ISO and PG&E will unilaterally file the traditional ISO Agreements at FERC.

**APPROVED:** \_\_\_\_\_  
**H. Dixon Flynn - City Manager**



# CITY OF LODI

## COUNCIL COMMUNICATION

**FUNDING:** Not applicable. Part of original NCPA budget

  
\_\_\_\_\_  
Alan N. Vallow  
Electric Utility Director

**PREPARED BY:** Boris Prokop, Power Supply and Rates Manager

ANV/BP/lst

C: City Attorney

**APPROVED:** \_\_\_\_\_  
H. Dixon Flynn - City Manager

# New Information Service

Free Reports

City Council Meeting

August 1, 2002



# Background



- Inter-connection of low EUD generation facilities at various locations to be completed to load in a reliable, transparent manner.
- Current interconnection agreement with PG&E expires December 1, 2002.
- Replacement is a pool approach with NCPA acting as Lodi's agent to California Independent System Operator, CAISO

# Options for Inter-Connection Services:

- CAISO provide with Agent (Option A)

- Least cost comparison but still substantial creation of new staff

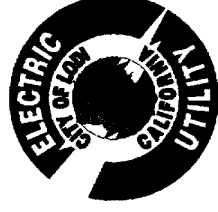
- No new staff creation Option A
- CAISO provide with Agent (Option A)
- 10% to 20% cost savings/billing
- More staff creation/billing

- Self Provide

- Much higher cost & staff

## Other provide (MUD )

- Much higher cost & staff



# Two Agreements Needed

- PG&E Replacement Agreement (RIA) with PG&E and other City member utilities. Provides a transition from old IA to new situation for PG&E
- NCPA Service Coordination Agreement (SCA) (EUD)
  - Provides a framework for NCPA to operate for members and how members will be accommodated under the CAISO through NCPA



# Summary

- Option A provides the least cost manner of providing the resource
- No Economic Control
- Preserves Local benefit
- Local Generation
- EUD looks at local options





**SCHEDULING COORDINATION  
PROGRAM AGREEMENT**

This Agreement, dated as of \_\_\_\_\_, 2002, by and among the Northern California Power Agency, a joint powers agency of the State of California (NCPA), and certain members of NCPA: City of Alameda, City of Biggs, City of Gridley, City of Healdsburg, City of Lodi, City of Lompoc, City of Palo Alto, Plumas-Sierra Rural Electric Cooperative, City of Roseville, City of Santa Clara, and City of Ukiah (Participants) that have executed this Agreement, is entered into on the basis of the following:

0.0    RECITALS:

- 0.1    NCPA, Silicon Valley Power (City of Santa Clara or Santa Clara), Pacific Gas and Electric Company (PG&E), Western Area Power Administration (Western), and the California Independent System Operator (CAISO) are parties to a Settlement Agreement Among Pacific Gas and Electric Company, Northern California Power Agency, The City of Roseville, California, The City of Santa Clara, California as Silicon Valley Power, and the California Independent System Operator Corporation, FERC Docket Nos. ER01-2998-000, ER02-358-000, and EL02-64-000 (Settlement Agreement);
- 0.2    NCPA, City of Alameda, City of Biggs, City of Gridley, City of Healdsburg, City of Lodi, City of Lompoc, City of Palo Alto, Plumas-Sierra Rural Electric Cooperative and City of Ukiah, and

- Santa Clara are parties to separate Replacement Interconnection Agreements, dated July 12, 2002, with PG&E;
- 0.3 Roseville is party to Interconnection Agreements with Western dated March 1, 1994 and March 24, 1997;
  - 0.4 NCPA and CAISO are parties to a Metered Subsystem Aggregation Agreement dated July 12, 2002 (MSS Aggregation Agreement);
  - 0.5 Santa Clara and Roseville are parties to separate Metered Subsystem Agreements, dated July 12, 2002, with CAISO (MSS Agreements);
  - 0.6 The Participants desire NCPA to act as their Scheduling Agent as defined in Section II of the Settlement Agreement and provide Scheduling Coordination Services;
  - 0.7 The Participants desire NCPA to provide for Scheduling Coordination Services utilizing the staff and resources of NCPA;
  - 0.8 The Participants desire to equitably allocate the costs of NCPA's provision of Scheduling Coordination Services;
  - 0.9 The Participants desire to equitably distribute the CAISO charges and credits accruing to NCPA as Scheduling Coordinator for the Participants;
  - 0.10 NCPA and the Participants wish to enter into this Agreement to set forth the terms under which NCPA will provide to the Participants the Scheduling Coordination Services described hereinafter; and
  - 0.11 This Agreement does not modify or supersede any NCPA Project (Third Phase) Agreements, the NCPA Facilities Agreement, the NCPA Pooling Agreement, or any other agreements among NCPA and its members.

NOW, THEREFORE, NCPA and the Participants hereby enter into this

## AGREEMENT

### 1.0 Definitions.

- 1.1 Agreement. This Scheduling Coordination Program Agreement.
- 1.2 Balancing Account. The Balancing Account is an account established at NCPA pursuant to this Agreement. The Balancing Account is established to: (1) make timely payments to the CAISO under the MSS Agreement and the MSS Aggregation Agreement and protect NCPA from potential Participant default by providing funds and time to cure, (2) provide working capital for NCPA's provision of Scheduling Coordination Services and to bridge timing differences between the receipt of payments from Participants and the date payments are due the CAISO, (3) satisfy CAISO security deposit requirements, and (4) provide security against Participant default.
- 1.3 Commission. The NCPA Commission.
- 1.4 Commissioner. A voting member of the Commission appointed by a Participant.
- 1.5 SC Committee. An ad hoc committee composed of one representative appointed by each Participant that will recommend SCALD Costs and Allocations.
- 1.6 Electric System. Electric System means, with respect to each Participant, all properties and assets, real and personal, tangible

and intangible, of the Participant now or hereafter existing, used or pertaining to the generation, transmission, transformation, distribution and sale of electric capacity and energy, including all additions, extensions, expansions, improvements and betterments thereto and equipment thereof; provided, however, that to the extent the Participant is not the sole owner of an asset or property or to the extent that an asset or property is used in part for the above described purposes, only the Participant's ownership interest in such asset or property or only the part of the asset or property used for electric purposes shall be considered to be part of its Electric System.

- 1.7 Revenues. Revenues means, with respect to each Participant, all income, rents, rates, fees, charges, and other moneys derived by the Participant from the ownership or operation of its Electric System, including, without limiting the generality of the foregoing, (a) all income, rents, rates, fees, charges or other moneys derived from the sale, furnishing and supplying of electric capacity and energy and other services, facilities, and commodities sold, furnished, or supplied through the facilities of its Electric System, (b) the earnings on and income derived from the investment of such income, rents, rates, fees, charges or other moneys to the extent that the use of such earnings and income is limited by or pursuant to law to its Electric System and (c) the proceeds derived by the Participant directly or indirectly from the sale, lease or other disposition of all or a part of the Electric System, but the term Revenues shall not include (i) customers' deposits or any other

deposits subject to refund until such deposits have become the property of the Participant or (ii) contributions from customers for the payment of costs of construction of facilities to serve them.

- 1.8 Scheduling Coordination Participation Percentage. The percentage share of each Participant in this Agreement as set forth in Appendix A, Scheduling Coordination Participation Percentages and SCALD Allocations.
- 1.9 Scheduling Coordination Services. The services provided to the Participants by NCPA under this Agreement.
- 1.10 Participant. An NCPA member or associate member that is a signatory to this Agreement.
- 1.11 SCALD Allocations. SCALD Costs allocated to the Participants in the NCPA Annual Budget.
- 1.12 SCALD Costs. System Control and Load Dispatch costs as set forth in the NCPA Annual Budget and incurred throughout the operating year.
- 1.13 Service Schedules. Specific arrangements established between NCPA and the Participant(s) relating to Scheduling Coordination services.
- 1.14 Utility Directors. An ad hoc working group of the utility directors of the Participants that provide advice to the NCPA General Manager.

## 2.0 Purpose.

The purpose of this Agreement is to set forth the terms and conditions under which NCPA will supply to the Participants Scheduling

Coordination Services as the Participants may request under this Agreement.

### 3.0 NCPA Duties.

NCPA shall perform as the Scheduling Coordinator in accordance with the relevant MSS Agreements and MSS Aggregation Agreement. Such duties shall include but are not limited to:

- 3.1 Recommend to the Participants and cooperate with the SC Committee in the preparation and distribution of the report on SCALD Costs and SCALD Allocations for consideration by the Utility Directors and approval by the Commission as provided in Section 9.2.
- 3.2 Implement Participant schedules pursuant to the Settlement Agreement.
- 3.3 Obtain and maintain metering data to satisfy CAISO requirements.
- 3.4 Review, validate, and reconcile CAISO charges and payments for services, file timely disputes and appropriately pursue disputes to resolution. Current CAISO charge types are listed in Appendix B "ISO Settlement Charge Matrix," but are subject to change by the CAISO.
- 3.5 Make timely collection from the Participants of costs charged to NCPA by the CAISO consistent with the provisions of Appendices B and E, and make timely payments to the CAISO of

such charges in accordance with the provisions of the relevant MSS Agreements.

#### 4.0 Participant Duties.

The duties of the Participants are to:

- 4.1 Provide NCPA with load and resource schedules in accordance with Appendix C "Participant Scheduling Protocols."
- 4.2 Pay NCPA for CAISO charges referred to in Section 3.
- 4.3 Provide staff and other assistance as may be required from time to time necessary for NCPA to fulfill its duties described in Section 3.
- 4.4 To comply with certain Western Electricity Coordinating Council (WECC) reliability criteria and to be subject to sanctions imposed by the WECC Reliability Criteria Agreement should they fail to do so, as set forth in Section 10.4 of the MSS Aggregation Agreement or the MSS Agreements and to comply with all relevant requirements of the MSS Aggregation Agreement or MSS Agreements, as applicable, to the operation and maintenance of its Electric System.
- 4.5 Indemnify NCPA in regard to Scheduling Coordination Services provided by NCPA.

#### 5.0 Billing and Payments

- 5.1 CAISO Estimated Invoice. NCPA will issue estimated invoices to Participants 15 calendar days after the end of each trade month, with payment due thirty (30) calendar days thereafter. These

invoices will be based on schedules, metering data, and estimates of power prices (A/S costs etc.) for the CAISO charge types enumerated in Appendix B. At the request of individual Participants, these invoices shall be provided in electronic format.

- 5.2 CAISO Final Invoice. NCPA will issue final invoices for the CAISO charge types enumerated in Appendix B to Participants 15 calendar days after receipt of CAISO final invoices, with payment due thirty (30) calendar days thereafter. If the CAISO final invoice results in a credit amount due to any Participant, NCPA will apply the credit to the balance of the Participant's share of the Balancing Account. At the request of individual Participants, these invoices shall be provided in electronic format.
- 5.3 Allocation of CAISO Charges and Credits. The basis for allocation to Participants of each CAISO charge type is described in Appendix B. Upon implementation by the CAISO of new or modified CAISO charge types, NCPA shall distribute to the SC Committee its proposal for any necessary changes in Appendix B as soon as practical. The SC Committee shall make a report to the Utility Directors and the Commission either recommending adoption of the NCPA allocation proposal, or offering an alternative proposal. New charge types and their allocation bases shall be included in an amended Appendix B.
- 5.4 NCPA Costs. Monthly billing statements prepared by NCPA shall be sent to each Participant showing the Participant's share of



SCALD Costs and other expenses relating to this Agreement incurred by NCPA for the previous month. This information may be provided on monthly billing statements prepared by NCPA pursuant to other Project Agreements. Each Participant's share of such costs and expenses shall be based on schedules contained in Appendix A, Scheduling Coordination Participation Percentages and SCALD Allocations.

- 5.5 Application of Balancing Account. NCPA may apply a Participant's share of the Balancing Account to the payment of any portion of a CAISO invoice allocated to that Participant. Application of such funds shall not relieve the Participant from any late payment charges pursuant to Section 5.6.
- 5.6 Late Payments. Amounts shown on each billing statement are due and payable at the time noted on the invoice, but not later than thirty (30) days after the date of the invoice, except that any amount due on a Friday, holiday or weekend may be paid on the following working day. Any amount due and not paid by a Participant shall bear interest at the per annum prime rate (or reference rate) of the Bank of America NT & SA then in effect, plus two percent per annum computed on a daily basis until paid.
- 5.7 Settlement Data. NCPA will make settlement data, including underlying data received from the CAISO, available to the Participants. Procedures and formats for the provision of such data

will be as established by the Participants and NCPA from time to time and specified in Appendix D, "Settlement Data." The data will include, but not be limited to, a listing of the CAISO charge types and NCPA's allocation methodology, and load and power cost data used for NCPA estimated and final invoices.

- 5.8 Audit Rights. Each Participant shall have the right to audit any data created or maintained by NCPA pursuant to this Agreement on thirty (30) days written notice unless otherwise agreed by such Participant and NCPA.
- 5.9 Participant Covenants. Each Participant covenants and agrees (a) to establish and collect rates and charges for the services and commodities provided by its Electric System sufficient to provide Revenues adequate to meet its obligations under this Agreement and to pay all other amounts payable from, and all lawful charges against or liens upon, the Revenues; (b) to make payments under this Agreement from the Revenues of, and as an operating expense of, its Electric System; (c) to make payments under this Agreement whether or not there is an interruption in, interference with, or reduction or suspension of services provided under this Agreement (such payments are not subject to any reduction, whether by offset or otherwise, and regardless of whether any dispute exists); and (d) to operate its Electric System and the business in connection therewith in an efficient manner and at reasonable cost and to maintain its Electric System in good repair, working order, and condition.

## 6.0 Defaults

- 6.1 Failure To Pay. If any Participant fails to pay any amount due to NCPA within thirty (30) days of the date of the estimated or final invoice enumerating such amounts, the Participant is in default and material breach under this Agreement.
- 6.2 Other Material Breaches. If a Participant is in default or in breach of any of its covenants under any other agreement with NCPA, it shall also be considered in material default of this Agreement.
- 6.3 Cure Period. Upon written notice by NCPA, a Participant shall cure any default within five (5) working days.
- 6.4 Cure of Defaults. A default pursuant to Section 6.1 shall be cured by the payment of any monies due NCPA, including any late payment charges pursuant to Section 5.6, and repayment of any funds drawn from the Balancing Account pursuant to Section 5.5. A default pursuant to Section 6.2 shall be cured by compliance with the covenant.
- 6.5 Remedies in the Event of a Material Default. NCPA may suspend the provision of Scheduling Coordination Service to any Participant with a default which has not been cured within the Cure Period, including deducting sums in default from the Balancing Account share of the defaulting Participant, demanding further assurances, and taking any other legal or equitable action before or after the Cure Period to compel the correction of the default, as for example, to mandate the collection of a surcharge to produce Revenues to

secure the cure of the default, (and the selection of one remedy shall not preclude the use of other remedies), on behalf of NCPA and the non-defaulting Participants (in which event the defaulting Participant shall not have the right to vote under the provisions of this Agreement while such defaulting Participant is in material default as determined by the non-defaulting Participants).

- 6.6 Obligations in the Event of Default. In the event that a Participant's share of the Balancing Account is insufficient to cover all CAISO invoices related to Scheduling Coordination Services provided to a defaulting Participant, (a) the defaulting Participant shall cooperate in good faith with NCPA and shall cure the default as rapidly as possible, on an emergency basis, taking all such action as is necessary, including but not limited to raising rates and charges to its customers to increase its Revenues to replenish its share of the Balancing Account as provided herein, drawing on its cash-on-hand and lines of credit, obtaining further assurances by way of credit support and letters of credit, repairing its Electric System, and taking all such other action as will cure the default quickly; and provided, however, (b) that no Participant shall be liable under this Agreement for the obligations of any other Participant, and each Participant shall be solely responsible and liable for performance of its obligations under this Agreement, and (c) that the obligation of each Participant under this Agreement is a several obligation and not a joint obligation with those of the other Participants.

7.0 CAISO Security Deposit

- 7.1 Any security or other deposit required by the CAISO shall be provided by each Participant prior to the date NCPA provides any Scheduling Coordination Services and shall be maintained as may be required thereafter. The initial deposit amounts are shown on Appendix F "Security Deposit."
- 7.2 Any changes in security or other deposits required by the CAISO may be provided by NCPA from the Balancing Account, and NCPA shall invoice the Participants within ten (10) working days for their shares.

8.0 Balancing Account

- 8.1 Initial Amount. Within thirty (30) days of the effective date of this Agreement, each Participant shall deposit in the Balancing Account an amount equal to its three highest months of projected ISO invoices for the succeeding twelve (12) months. NCPA shall maintain a detailed accounting of the share of each Participant in the Balancing Account. Interest earned on the Balancing Account shall be credited to the shares of the Participants. Any losses in the Balancing Account, due for example to the compulsory sale of investments to comply with a requirement of the CAISO, shall be allocated to the Participants' shares.
- 8.2 Periodic Reviews. Prior to the effective date of this Agreement and at least quarterly thereafter, NCPA shall review the balance and Participant shares of the Balancing Account to ensure the aggregate

amount is equal to the current projection of the three highest months of each Participant's projected ISO invoices for the succeeding twelve months. Any funds in excess of one hundred ten per cent (110%) of this amount shall be credited to the Participants. If the funds on deposit in the Balancing Account are less than ninety per cent (90%) of this amount, NCPA shall prepare an invoice to the affected Participants who shall remit such funds within thirty (30) days of the invoice date.

8.3 Emergency Additions. In the event that the funds in the Balancing Account are insufficient to allow payment of an ISO invoice, NCPA shall notify Participants and then prepare and send a special or emergency assessment to the Participants.

8.4 Return of Funds. On the termination of this Agreement or the withdrawal of a Participant, the affected Participant or Participants may apply to NCPA for the return of their share of Balancing Account funds ninety (90) days after the effective date of such termination or withdrawal. NCPA shall, in its sole discretion, as determined by a vote of the Commission, excluding the vote of the withdrawing Participant estimate the then outstanding liabilities of the Participant, including any estimated contingent liabilities, such as by way of example CAISO invoices subject to dispute or to revision by the CAISO or the Federal Energy Regulatory Commission, and retain all such funds until all such liabilities have been fully paid or otherwise satisfied in full. NCPA may apply any remaining Balancing Account funds to any remaining obligation of

such Participant(s), including but not limited to revised CAISO invoices.

9.0 NCPA Administrative Costs

- 9.1 SCALD Allocation. For the NCPA Fiscal Year beginning July 1, 2002, certain SCALD costs shall be allocated to the Participants on the basis detailed in Appendix A, Scheduling Coordination Participation Percentages and SCALD Allocations.
- 9.2 Cost Allocation Study. NCPA, in conjunction with the Participants, shall prepare and distribute to the SC Committee no later than December 31, 2002 a report detailing all SCALD costs and functions. The SCALD related costs and functions shall include, but not be limited to, ISO Scheduling Coordination Services, Dispatch, Forecasting, Pre-Scheduling, Hydro Scheduling, ISO Settlements, NCPA Settlements, and Member Settlements. The report shall include recommendations for assigning costs to each function, based on cost causation principles. The SC Committee shall review the report and make recommendations for adoption and/or modification of the report. The report and SC Committee recommendations shall be reviewed and adopted or modified by the Utility Directors by the end of January 2003. The Utility Directors shall make a final recommendation for inclusion of the report results in the NCPA FY2004 budget. Those costs and allocations approved by the Commission shall be included in the NCPA FY2004 budget and in a revised Appendix A, Scheduling Coordination Participation Percentages and SCALD Allocations.

- 9.3 Annual Budget. Prior to the beginning of each NCPA fiscal year for which no budget has been adopted and for each fiscal year for which a budget will be adopted, NCPA shall give notice to each Participant of the Participant's projected share of the costs and expenses that NCPA estimates it will incur in the administration of this Agreement. Such costs shall be allocated to the Participants by such methods approved by the Commission pursuant to Section 9.2.
- 9.4 Scheduling Coordination Participation Percentage. Prior to the beginning of each NCPA Fiscal Year, the Commission shall revise the Scheduling Coordination Participation Percentages specified in Appendix A, Scheduling Coordination Participation Percentages and SCALD Allocations, on the basis of each Participant's share of SCALD Costs applicable to this Agreement.
- 9.5 Scheduling Coordination Participation Percentage. Prior to the beginning of each NCPA Fiscal Year, the Commission shall revise the Scheduling Coordination Participation Percentages specified in Appendix A, Scheduling Coordination Participation Percentages and SCALD Allocations, on the basis of each Participant's share of SCALD Costs applicable to this Agreement.

10.0 Administration of Agreement

- 10.1 NCPA. The Commission has overall responsibility for the administration of this Agreement.
- 10.2 SC Committee. The SC Committee shall disband after its initial participation in the preparation of the report pursuant to Section



9.2 unless the NCPA General Manager requests the Participants to reappoint the committee to address such questions as changes in CAISO charges that may warrant changes in SCALD Costs or SCALD Allocations.

10.3 NCPA Commission Governance Of The Program.

10.3.1 Commission Meetings. The Commission shall meet in accordance with provisions of the Joint Powers Agreement.

10.3.2 Quorum. A quorum of the Commission, for purposes of acting upon matters relating to this Agreement, shall consist of those Commissioners, or their designated alternates, representing a numerical majority of the Participants, or, in the absence of such, those Commissioners representing Participants having a combined Scheduling Coordination Participation Percentage of greater than fifty percent (50%).

10.4 Voting

10.4.1 Agreement Voting. Each Participant shall have the right to cast one vote with respect to matters pertaining to this Agreement. Actions of the Commission with regard to this Agreement shall be effective only upon a majority vote subject to the following exceptions:

(a) Upon demand of any Participant, at any meeting of the Commission, the vote on any issue relating to this Agreement, shall be based upon the Scheduling Coordination Participation Percentages. Each Participant shall have a number of votes equal to its Scheduling Coordination Participation Percentage. Actions of the

Commission shall be effective only upon an affirmative vote of sixty five percent (65%) or more of the total votes to which all Participants are entitled.

(b) Any Participant may veto a discretionary action of the Participants relating to this Agreement that was not taken by a sixty five percent (65%) or more vote, within ten (10) days following mailing of notice of such Commissioners' action by giving written notice of veto to NCPA, unless at a meeting of the Commissioners or alternates called for the purpose of considering the veto, held within thirty (30) days after such veto notice, the holders of Scheduling Coordination Participation Percentages totaling sixty five percent (65%) or more shall vote to override the veto.

(c) The sixty five percent (65%) affirmative vote required for action pursuant to this section shall be reduced by the amount that the voting rights of any Participant exceed thirty five percent (35%), but such sixty five percent (65%) shall not be reduced below a majority in interest.

#### 11.0 Term and Termination

11.1 Term. This Agreement shall become effective on the date on which it has been duly executed by NCPA and by six (6) other signatories, but not later than the date the FERC deems the Settlement Agreement to be effective and shall continue in effect until

terminated by consent of all of the Participants that have not withdrawn or materially defaulted as provided herein.

- 11.2 Termination and Partial Termination. Any Participant may withdraw from the Agreement by submitting notice, in writing, to all other Participants at least three (3) months in advance of the effective date of such withdrawal. Withdrawal by any Participant shall not terminate this Agreement as to the remaining Participants. Withdrawal by any Participant will not terminate any ongoing or undischarged contingent liabilities or obligations resulting from this Agreement until they are satisfied in full or provision satisfactory to NCPA and its nonwithdrawing Participants has been made for their satisfaction in full. Such termination shall be reflected in a revised Appendix A, Scheduling Coordination Participation Percentages and SCALD Allocations.
- 11.3 Associated Costs. A Participant withdrawing from this Agreement pursuant to Section 11.2 shall reimburse NCPA for any costs resulting from withdrawal, including but not limited to recomputations of schedules and appendices to this Agreement, removal of communication equipment and data transmission facilities, or similar incidental costs.
- 11.4 Termination for Default. In the event that a default by a Participant remains uncured for one (1) month after notice, NCPA may terminate that Participant from the Agreement and take any other action, including the remedies for default provided in this Agreement. Termination of a signatory will not terminate any ongoing or undischarged contingent liabilities or obligations

resulting from this Agreement until such obligations are satisfied in full, and all of the costs thereof, including reasonable attorney fees, the fees and expenses of other experts, including auditors and accountants, and other reasonable and necessary costs associated with any and all of the remedies, are paid in full. Such termination shall be reflected in a revised Appendix A, Scheduling Coordination Participation Percentages and SCALD Allocations.

12.0 Confidentiality. Participants and NCPA will keep all confidential or trade secret information made available to them in connection with this Agreement confidential, to the extent possible, consistent with applicable laws, including the California Public Records Act. It shall be the responsibility of the holder of the claim of confidentiality or trade secret to defend at its expense against any request that such information be disclosed. Confidential or trade secret information shall be marked or expressly identified as such.

13.0 New Participants. New Participants may be added to this Agreement by a vote of the Commission in accordance with Section 10 and execution and delivery of this Agreement by the new Participant. The addition of a new Participant shall be reflected in a revised Appendix A, Scheduling Coordination Participation Percentages and SCALD Allocations.

14.0 No Consequential Damages. No party to this Agreement shall be liable to NCPA or to any Participant or Participants for consequential damages

that might result from any action or inaction in connection with this Agreement.

- 15.0 Amendments. Except where this Agreement specifically provides otherwise, this Agreement may be amended only by written instrument executed by the parties with the same formality as this Agreement.
- 16.0 Severability. In the event that any of the terms, covenants or conditions of this Agreement or the application of any such term, covenant or condition, shall be held invalid as to any person or circumstance by any court having jurisdiction, all other terms, covenants or conditions of this Agreement and their application shall not be affected thereby, but shall remain in force and effect unless the court holds that such provisions are not severable from all other provisions of this Agreement.
- 17.0 Governing Law. This Agreement shall be interpreted, governed by, and construed under the laws of the State of California.
- 18.0 Headings. All indexes, titles, subject headings, section titles and similar items are provided for the purpose of convenience and are not intended to be inclusive, definitive, or affect the meaning of the contents of this Agreement or the scope thereof.
- 19.0 Notices. Any notice, demand or request required or authorized by this Agreement to be given to any party shall be in writing, and shall either be personally delivered to a representative of the Participant on the Commission and the Secretary of the Commission or transmitted to the

Participant and the secretary at the address shown on the signature pages hereof. The designation of such address may be changed at any time by written notice given to the Secretary of the Commission who shall thereupon give written notice of such change to each Participant.

20.0 Warranty Of Authority. Each Participant, and NCPA, represents and warrants that it has been duly authorized by all requisite approval and action to execute and deliver this Agreement and that this Agreement is a binding, legal, and valid agreement enforceable in accordance with its terms as to the Participant and as to NCPA.

21.0 Counterparts. This Agreement may be executed in any number of counterparts, and each executed counterpart shall have the same force and effect as an original instrument and as if all the signatories to all of the counterparts had signed the same instrument. Any signature page of this Agreement may be detached from any counterpart of this Agreement without impairing the legal effect of any signatures thereon, and may be attached to another counterpart of this Agreement identical in form hereto but having attached to it one or more signature pages.

/

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IN WITNESS WHEREOF, NCPA and each Participant has, by the signature of its duly authorized representative shown below, executed and delivered a counterpart of this Agreement.

NORTHERN CALIFORNIA  
POWER AGENCY

CITY OF ALAMEDA

By: \_\_\_\_\_

By: \_\_\_\_\_

Its:

Its:

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Address: 180 Cirby Way  
Roseville, CA 95678

Address: 2000 Grand Street  
Alameda, CA 94501

CITY OF BIGGS

CITY OF GRIDLEY

By: \_\_\_\_\_

By: \_\_\_\_\_

Its:

Its:

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Address: 464-B B Street  
Biggs, CA 95917

Address: 685 Kentucky Street  
Gridley, CA 95948

CITY OF HEALDSBURG

CITY OF LODI

By: \_\_\_\_\_

By: \_\_\_\_\_

Its:

Its:

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Address: 126 Matheson Street  
Healdsburg, CA 95448

Address: 221 West Pine Street  
Lodi, CA 95241

CITY OF LOMPOC

By: \_\_\_\_\_

Its:

Date: \_\_\_\_\_

Address: 100 Civic Center Plaza  
Lompoc, CA 93438

CITY OF PALO ALTO

By: \_\_\_\_\_

Its:

Date: \_\_\_\_\_

Address: 250 Hamilton Avenue  
Palo Alto, CA 94301

PLUMAS-SIERRA RURAL ELECTRIC  
COOPERATIVE

By: \_\_\_\_\_

Its:

Date: \_\_\_\_\_

Address: P. O. Box 2000  
Portola, CA 96122

CITY OF ROSEVILLE

By: \_\_\_\_\_

Its:

Date: \_\_\_\_\_

Address: 311 Vernon Street  
Roseville, CA 95678

CITY OF SANTA CLARA

By: \_\_\_\_\_

Its:

Date: \_\_\_\_\_

Address: 1500 Warburton Avenue  
Santa Clara, CA 95080

CITY OF UKIAH

By: \_\_\_\_\_

Its:

Date: \_\_\_\_\_

Address: 300 Seminary Avenue  
Ukiah, CA 95482



APPENDIX A

SCHEDULING COORDINATION PARTICIPATION PERCENTAGES AND SCALD ALLOCATIONS

Exhibit A  
Voting Percentages

Participant	%
Alameda	11.2070%
Biggs	0.2810%
Gridley	0.7210%
Healdsburg	2.4995%
Lodi	15.8020%
Lompoc	3.3765%
Palo Alto	17.4656%
Plumas Sierra	2.2439%
Roseville	21.0508%
Santa Clara	21.7391%
Ukiah	3.6136%
Total	100.0000%

## APPENDIX B

### ISO CHARGE TYPE MATRIX

#### APPENDIX B

#### ISO Charge/Payment Allocation Basis for the Members of the NCPA Pool

This spreadsheet presents the allocation basis for ISO charges and payments within the NCPA Pool. By the time these allocations are applied, the ISO charges and payments have already been allocated to the Pool as a whole, and these allocations are only used to further allocate within the Pool.

Notes:     Member ISO Gross Metered Load is Metered Load + Internal Generation  
              Member ISO Net Metered Load = Load as Measured at the Meter  
              Member ISO Gross Metered Demand = Member ISO Gross Metered Load + RT  
              Exports (Based On Deal Participation Percentage)  
              Member ISO Net Metered Demand = Member ISO Net Metered Load + RT Exports  
              (Based On Deal Participation Percentage)

#### Ancillary Services Payments

L	0001	Day Ahead Spinning Reserve due SC
L	0051	Hour Ahead Spinning Reserve due SC
L	0002	Day Ahead Non-Spinning Reserve due SC
L	0052	Hour Ahead Non-Spinning Reserve due SC
L	0004	Day Ahead Replacement Reserve due SC
L	0054	Hour Ahead Replacement Reserve due SC
L	0005	Day Ahead Regulation Up due SC
L	0055	Hour Ahead Regulation Up due SC
L	0006	Day Ahead Regulation Down due SC
L	0056	Hour Ahead Regulation Down due SC

#### ISO Cost Allocation Basis Within the NCPA Pool

Project Participation Percentage
Project Participation Percentage
Project Participation Percentage
Project Participation Percentage
Project Participation Percentage
Project Participation Percentage
Project Participation Percentage
Project Participation Percentage
Project Participation Percentage
Project Participation Percentage

#### Comments

**Ancillary Services Costs**

R	0111	Spinning Reserve due ISO	Member ISO Gross Metered Demand	chg matrix says by zone, but calc is by region
R	0112	Non-Spinning Reserve due ISO	Member ISO Gross Metered Demand	chg matrix says by zone, but calc is by region
R	0114	Replacement Reserve due ISO	Member ISO Gross Metered Demand	chg matrix says by zone, but calc is by region
R	0115	Regulation Up Due ISO	Member ISO Gross Metered Demand	chg matrix says by zone, but calc is by region
R	0116	Regulation Down Due ISO	Member ISO Gross Metered Demand	chg matrix says by zone, but calc is by region

**Withholding of Dispatched Replacement Reserve Capacity Payment**

L	0024	Dispatched Replacement Reserve (Bid-In) Capacity Withhold	Project Participation Percentage
L	0124	Dispatched Replacement Reserve (Self-Provided) Capacity Withhold	Project Participation Percentage

**A/S Rational Buyer Settlement**

C	1011	Ancillary Service Rational Buyer Adjustment	Member ISO Gross Metered Demand
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**RMR Preempted Ancillary Service Capacity Settlements**

L	0061	Hour Ahead RMR Preemption of Spinning Reserve (HA Price)	Project Participation Percentage
L	0062	Hour Ahead RMR Preemption of Non-Spinning Reserve (HA Price)	Project Participation Percentage
L	0064	Hour Ahead RMR Preemption of Replacement Reserve (HA Price)	Project Participation Percentage
L	0065	Hour Ahead RMR Preemption of Regulation Up (HA Price)	Project Participation Percentage
L	0066	Hour Ahead RMR Preemption of Regulation Down (HA Price)	Project Participation Percentage
L	0071	Real Time RMR Preemption of Spinning Reserve (DA Price)	Project Participation Percentage
L	0072	Real Time RMR Preemption of Non-Spinning Reserve (DA Price)	Project Participation Percentage
L	0074	Real Time RMR Preemption of Replacement Reserve (DA Price)	Project Participation Percentage
L	0075	Real Time RMR Preemption of Regulation Up (DA Price)	Project Participation Percentage

L	0076	Real Time RMR Preemption of Regulation Down (DA Price)	Project Participation Percentage
L	0081	Real Time RMR Preemption of Spinning Reserve (HA Price)	Project Participation Percentage
L	0082	Real Time RMR Preemption of Non-Spinning Reserve (HA Price)	Project Participation Percentage
L	0084	Real Time RMR Preemption of Replacement Reserve (HA Price)	Project Participation Percentage
L	0085	Real Time RMR Preemption of Regulation Up (HA Price)	Project Participation Percentage
L	0086	Real Time RMR Preemption of Regulation Down (HA Price)	Project Participation Percentage

#### **RMR Preemption Revenues Allocation**

Z	1061	Distribution of Preempted Spinning Reserve	Member ISO Gross Metered Demand
Z	1062	Distribution of Preempted Non-Spinning Reserve	Member ISO Gross Metered Demand
Z	1064	Distribution of Preempted Replacement Reserve	Member ISO Gross Metered Demand
Z	1065	Distribution of Preempted Regulation Up	Member ISO Gross Metered Demand
Z	1066	Distribution of Preempted Regulation Down	Member ISO Gross Metered Demand

#### **RMR Imbalance Energy Payment Withhold**

L	0410	Unscheduled RMR Energy	Project Participation Percentage
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#### **Inter-Zonal Congestion Settlements**

Z	0203	Day-Ahead Inter-Zonal Congestion Settlement	External Ties: Deal Participation Percentage Path 15: To Lompoc	More general logic needed if we ever take delivery in SP15 or ZP26
Z	0253	Hour-Ahead Inter-Zonal Congestion	External Ties: Deal Participation Percentage Path 15: To Lompoc	More general logic needed if we ever take delivery in SP15 or ZP26
B	0256	Hour-Ahead Inter-Zonal Congestion Debit to SCs	External Ties: Deal Participation Percentage Path 15: To Lompoc	More general logic needed if we ever take delivery in SP15 or ZP26

### ISO Administrative Charges

- C 0521 GMC-Control Area Services
- C 0522 GMC-Congestion Management
  
- C 0524 GMC-A/S and RT Energy Operations

Member ISO Gross Metered Demand  
(abs(CT203) + abs(CT253)) / 2 in all  
zones  
Member ISO Gross Metered Load

Easy way to determine net inter-  
zonal nfu flow  
A reasonable simplified allocation  
basis - the charge is actually based  
on many components including a/s  
purchases and sales, self-provision,  
instructed and uninstructed energy

### Market Uplifts

- C 0591 Emissions Cost Recovery
  
- C 0592 Start-Up Cost Recovery

Member ISO Gross Metered Load

should include exports to other in-state  
control areas

Member ISO Gross Metered Load

should include exports to other in-  
state control areas

### TAC/Wheeling Charges

- L 0382 High Voltage Wheeling Charge due ISO
  
- L 0383 Low Voltage Wheeling Charge due ISO

For member load: Member ISO Net  
Metered Load  
For exports: Based on Deal  
Participation Percentage  
For member load: Member ISO Net  
Metered Load

I believe exports from the control  
area will only be subject to high  
voltage wheeling

### Per Unit Charges

- C 1010 Neutrality Adjustments
- C 1101 Black Start Capacity due ISO
- C 1302 Long Term Voltage Support Due ISO
- C 1303 Supplemental Reactive Energy Due ISO
- C 1353 Black Start Energy Due ISO
  
- C 1999 Rounding Adjustment

Member ISO Net Metered Demand  
Member ISO Gross Metered Demand  
Member ISO Gross Metered Demand  
Member ISO Gross Metered Demand  
Member ISO Gross Metered Demand  
  
Member ISO Gross Metered Demand

Not sure about RT vs HA Exports in  
this allocation

### Instructed Energy Settlements

- L 0302 Supplemental Reactive Energy Due SC
- L 0401 Instructed Energy
- L 0481 Excess Cost for Instructed Energy

Project Participation Percentage  
Project Participation Percentage  
Project Participation Percentage

### UFE & Uninstructed Energy Settlements

- Z 0406 SC Unaccounted for Energy (UFElogical)
- L 0407 Uninstructed Energy

Member ISO Gross Metered Demand

For UFE, HA Exports really refers to exports from the UDC area

See Pool Settlement for Energy in  
MSS&PoolBilling.doc  
and Example in MSS&PoolBilling.xls  
To those with net negative UE

- C 0487 Allocation of Excess Cost for Instructed Energy

### No-Pay Provision Settlements

- L 0141 No Pay Charge - Spinning Reserve
- L 0142 No Pay Charge - Non Spinning Reserve
- L 0144 No Pay Charge - Replacement Reserve
- C 1030 No Pay Provision Market Refund
- L 0145 Non Compliance Charge for Regulation Up
- L 0146 Non Compliance Charge for Regulation Down

Project Participation Percentage  
Project Participation Percentage  
Project Participation Percentage  
Member ISO Gross Metered Demand  
Project Participation Percentage  
Project Participation Percentage

### Ferc Fee

- C 0550 Ferc Fee

Member ISO Gross Metered Demand

### Manual Line Item Entries

- L 1001 Black Start Energy due SC
- L 1003 Regulation Energy payment Adjustment due SC
- L 1004 Overgeneration due SC
- C 1012 RMR Preemption Revenue Allocation
- C 1120 Est. Summer Reliability Contract Capacity Pymt/Charge
- C 1121 Adj. Summer Reliability Contract Capacity Pymt/Charge
- C 1210 Existing Contracts Cash Neutrality Charge/Refund
- L 3101 Black Start Capacity due SC
- L 3302 Supplemental Reactive Energy due SC
- L 3303 Long Term Voltage Support due SC

Project Participation Percentage  
Project Participation Percentage  
Project Participation Percentage  
Member ISO Gross Metered Demand  
Member ISO Net Metered Demand  
Member ISO Net Metered Demand  
Member ISO Net Metered Demand  
Project Participation Percentage  
Project Participation Percentage  
Project Participation Percentage

payment defined by contract  
payment defined by contract  
payment defined by contract

C	3351	Grid Management Charge Adjustment Charge/Refund	Member ISO Gross Metered Demand	
L	3353	Black Start Energy due SC	Project Participation Percentage	payment defined by contract
L	3473	Discretionary Load Curtailment Program - Energy Payment	Participant's Bid	not implement yet
C	3483	Discretionary Load Curtailment Program Energy Charge	Member ISO Gross Metered Demand	

#### **Non-compliance**

C	0480	Underscheduled Load Penalty	Member ISO Gross Metered Demand	
L	0485	Insufficient Response to AWE Instruction	Project Participation Percentage	Insufficient response during Stage 1,2 or 3 emergency
C	1480	Underscheduled Load Revenue Allocation	Member ISO Gross Metered Demand	
C	3999	Interest and Penalty Charge	Member ISO Gross Metered Demand	

#### **Energy Exchange Program**

R	1487	Energy Exchange Program Neutrality Adjustment	To those with net negative UE	
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#### **Demand Relief**

L	0007	Demand Relief Monthly Payment	Participant's Bid	not implemented yet
C	0117	Demand Relief Monthly Charge - Capacity	Member ISO Gross Metered Demand	
L	3472	Demand Relief Monthly Energy Payment	Participant's Bid	not implemented yet
C	3482	Demand Relief Monthly Charge - Energy	Member ISO Gross Metered Demand	

#### **Real Time Intra-Zonal Congestion Settlements**

L	0451	Real-time Intra-Zonal Congestion Inc/Dec Settlement	Project Participation Percentage	
Z	0452	Real-time Intra-Zonal Congestion Charge/Refund (Grid Operations Charge)	Member ISO Net Metered Demand	

Notes:	C	Allocated per Control Area
	L	Allocation per Location
	Z	Allocation per Zone
	R	Allocated per Region
	B	Allocated per Branch Group (Tie)

The following charges are allocated to NCPA by the ISO on a Zonal or Regional Basis. Absent direction to socialize these charges, we will allocate these within the Pool on a Zonal basis:

- Ancillary Services Costs CT 0111, 0112, 0114, 0115, 0116
- Intra-zonal Congestion CT 0452
- Unaccounted For Energy CT 0406
- Distribution of Preempted Reserve 1061, 1062, 1064, 1065, 1066
- Energy Exchange Program CT 1487
- Interzonal Congestion CT 0203, 0253



APPENDIX C

PARTICIPANT SCHEDULING PROTOCOLS

**NCPA SCHEDULE COORDINATION SERVICE**

**SCHEDULING PROTOCOLS FOR SANTA CLARA**

**•PURPOSE**

The purpose of these protocols is to provide The Participants with written instructions to follow so that Northern California Power Agency (NCPA) acting as The Participant's Scheduling Coordinator (NCPA-SC) can satisfy all the requirements under the NCPA MSS AGGREGATOR Agreement (NMAA) dated July 12, 2002.

**•RESPONSIBILITY**

NCPA will follow all provisions of the NCPA/NMAA NCPA MSS AGGREGATOR AGREEMENT. NCPA-SC will coordinate with The Participants all schedules required under the NMAA. The NCPA Dispatcher will coordinate all real-time adjustments to resources with The Participants and the NCPA-SC.

**•PROCEDURE**

The Participants will provide NCPA-SC with their best-estimated load forecast to be used for scheduling in the ISO Markets. The Participants will provide NCPA-SC all information on how they will meet this load forecast so as to provide a balanced schedule for the scheduling period being scheduled. The Participants will coordinate with NCPA-SC how they will meet the ancillary service (A/S) requirement and which resources will be used including the purchasing of A/S from the ISO A/S market or from third parties. All information provided by The Participants will follow the timelines listed below as they pertain to scheduling into the ISO markets.

The Participants will coordinate with the NCPA Pre-Scheduling all schedules utilizing their shares of the NCPA resources. The Participants will coordinate with the NCPA-SC and NCPA Dispatcher all adjustments to resource schedules, both their share of NCPA Resources and The Participants Resources required for load following under the NMAA.

During times the ISO declares a System Emergency under the NMAA, NCPA and The Participants will each follow their respective Emergency Action Plans (EAP's) as directed by the ISO. NCPA Manager of Coordinated Operations or his designate will coordinate all manual load shedding for the NCPA Pool and

The Participants as directed to by the ISO. ISO is to follow Attachment B of the NCPA EAP when ordering firm load interruptions.

### •COMMUNICATION

The Participants will provide NCPA all necessary meter SCADA data for their loads and resources used to satisfy their requirements under their agreement with the ISO and for the NCPA-SC and NCPA Dispatcher to use for real-time adjustments. Meter data provided by The Participants will be used for settling with the NCPA Pool and ISO.

### •SCHEDULING

All scheduling timelines established by NCPA to meet the ISO deadlines will be adhered to unless mutually agreed to by both The Participants and NCPA-SC. If no agreement can be reached, the NCPA-SC will take necessary steps to get schedules in before the ISO markets close. If The Participants fail to submit a schedule within the required timeframes, NCPA-SC will exercise its authority to submit a workable schedule to the ISO on behalf of The Participants. NCPA and The Participants will work together as soon as possible to resolve all scheduling disagreements.

#### •Weekly

1. No later than 14:00 each day, provide a weekly load forecast of hourly MW values for the next seven (7) days (rolling seven-day forecast).

#### •Daily

1. The Participants may make daily modification to the Weekly forecast by providing such changes to NCPA prior to 08:00 two (2) workdays before the active scheduling day.

#### •Day Ahead

1. For each scheduling day, The Participants is to provide NCPA with a complete balanced Day-Ahead schedule no later than 1hour prior to the ISO Day Ahead Market closing. NCPA-SC and The Participants can mutually agree to modify the time to submit schedules as necessary.
  - a. Example: loads, resources, imports, exports, sales, trades, ancillary services

### •Hourly

1. The Participants may make modifications to active schedules by providing such changes to NCPA no later than 1 hour before the close of the ISO Hour-Ahead Market unless mutually agreed to between NCPA-SC and The Participants.
  - a. Example: For power that is scheduled for generation or delivery 15:00, changes must be submitted to NCPA no later than 11:00.

### •Real Time

1. NCPA is to be notified of all forced generation outages that affect the Generating Resources assigned to the NCPA-SC.
2. NCPA is to be notified of all outages that affect The Participants load.
3. The Participants may instruct the NCPA Dispatcher to raise or lower their share of the NCPA Resources and/or The Participants Resources assigned to the NCPA-SC for load following (balancing) purposes as needed.
4. The Participants may request from the NCPA Dispatcher to supply load following power from the Pool share of the NCPA Resources as available. The power associated with this request will be credited to The Participants for settlement purposes (i.e., water, fuel, hours, losses, etc.).
5. The Participants may request from the NCPA Dispatcher to schedule an import on the COI using The Participant's CRN as assigned by the ISO, up to 30 minutes prior to the start of the ramp, or closer to the ramp if mutually agreed by all parties.
6. For load following purposes The Participants will provided NCPA with a prioritized list of units or contracts that it wishes to use for load following. This list will include both incremental and decremental resources. To the extent possible NCPA will follow these instructions.
7. The Participants will make best efforts to keep NCPA informed of any changes in its system that will affect NCPA's ability to follow load.

### •Special Scheduling Provisions

1. The Participants will provide NCPA-SC each day a priority list of resources to be used for daily load following by the NCPA Dispatcher.
2. The Participants Scheduling of SC/SC Trades: Scheduling of an SC/SC Trade between a Third Party and NCPA-SC or between Third Party and The

Participants. The Participants will provide all necessary scheduling information as needed for this power to be included in The Participants Resource/Load balance for the scheduling day being scheduled.

3. The Participants will provide NCPA-SC a daily data file showing applicable contract provisions being used under this Agreement of energy, A/S and/or capacity to be scheduled by NCPA-SC.
4. The Participants are to coordinate all emergency operations including load curtailments with the NCPA Dispatcher.
5. The Participants can request NCPA to handle special scheduling arrangements under this MSS AGGREGATOR Agreement on a case-by-case basis. The NCPA Power Management Team will review each request with Participant to achieve a mutually acceptable solution. It is the intent of NCPA that no unreasonable request will be denied.

### **•Outage Coordination**

The NCPA Outage Coordinator (OC) or his designate will coordinate all outages of the NCPA Facilities and The Participants Facilities assigned to NCPA-SC for purposes of following the ISO protocols. The OC will insure that at no time will multiple outages be scheduled at the same time that may have an adverse impact on the NCPA System.

APPENDIX D  
SETTLEMENT DATA  
"FOR FUTURE USE"

## APPENDIX E

### IMBALANCE CHARGES

The MSS agreement anticipates that an MSS or in this case NCPA as the scheduling coordinator (SC) will follow load. Load following does not mean real-time regulation, but the movement of resources to match load on average within each 10-minute settlement interval. Aside from the obvious contribution to control area reliability, the primary benefit to the Agency of following load is to minimize exposure to the ISO's imbalance energy market, and to any current or future ISO costs that may be assigned to those who buy or sell uninstructed energy.

To receive the benefits of following load, ISO settlements and indeed the MSS concept require that the resources be scheduled in the same portfolio as the load. This is a major reason that Santa Clara is consolidating its ISO scheduling into NCPA's SC portfolio; that is to enable Santa Clara to follow their load utilizing their share of the jointly owned resources in addition to their other resources.

There is a related benefit to NCPA Pool and Santa Clara by having all their resources and load in the same portfolio as their jointly owned resources. The benefit is the substitution of one resource for another, ie., move one resource up and another down, after the close of the ISO HA market. To the extent that resources can be flexibly scheduled (certainly generators, and also contracts with existing rights flexibility), this substitution of one resource for another can lead to efficiencies that are allowed by the ISO as long as the MSS stays in total within its deviation band.

This Appendix addresses two questions. First, how will the MSS operating entities decide which resources to use to follow load? Second, what is the proper accounting and settlement if it should happen that one operating entity's resource is used to follow the other's load? The following proposals have come out of several discussions with Santa Clara and among NCPA staff.

For the purpose of this discussion, the two MSS operating entities are considered to be Santa Clara and NCPA Pool, although these concepts could be extended to any number of non-Pool MSS participants. The order of settlement is to first determine the ISO uninstructed energy that belongs to NCPA Pool and SNCL, and any power that flowed between them, and then based on those results to settle ISO charges within the MSS.

### **Real-time MSS Decisions**

Once the real-time hour begins, we envision that the NCPA-SC dispatcher will decide which units to move to follow load. The dispatcher's real-time decisions would be based on rules developed in advance by the operating entities (COG) based on economic and other factors. While nothing in this discussion is meant to preclude consultation by the dispatcher with the operating entities, even in real time, the severe time constraints of the 10-minute market and workload dictate that the dispatcher must have the authority to move units quickly to minimize the uninstructed energy requirement of the MSS as a whole, without such consultation.

### **Pre-scheduling Decisions**

We have already designed our scheduling program to allow each operating entity to independently schedule their share of the jointly owned units separately for energy and the provision of ancillary services. Each operating entity may use their units as they wish but within their ownership-share capacity. Schedules can be adjusted in the ISO's HA market, currently 3-hours prior to the real-time hour. Each operating entity can decide to leave a portion of their ownership share available for following load up in real-time. Schedule changes with the ISO after the close of the HA market are not possible, and the settlement for uninstructed energy for each unit is the difference between the recorded data and the HA schedules. By leaving a portion of the unit available, should the dispatcher move the unit up to follow load, the positive imbalance that results on the unit would be offset by the negative imbalance of the load, and the net result is to reduce our net take of uninstructed energy from the ISO. However, this netting to zero of the uninstructed energy is for the MSS as a whole, not for each operating entity separately.

To allow each operating entity to utilize the available capacity of their own units, or their share of the jointly owned units, we propose to create in NCPA's scheduling system new schedules that represent a change to the ISO hour-ahead market energy schedule for a particular unit. We are calling these new schedules the "Final" market energy schedules for the unit. These schedules cannot be sent to the ISO. They are for internal use only. They are limited in the positive direction by each operating entity's available capacity taking into consideration that we cannot schedule into any reserve capacity sold to the ISO. They may reduce an operating entity's market energy schedule in the negative direction to zero.

For a jointly owned resource, the final schedules will be aggregated by unit on their way to the SCADA system; so the dispatcher will get a final market energy schedule for the unit as a whole. The dispatcher will see the final schedule as the target for the unit in each interval (plus any ISO A/S instructions). The dispatcher should only deviate from the final schedule if the load moves in an unexpected way. The fact that the final schedule is different from the ISO HA schedule means that at settlement time we will be taking or selling extra uninstructed energy because the unit will not be run in accordance with the ISO HA schedule, but as long as the dispatcher is following load, there will be offsetting uninstructed energy on the load side.

### **Allocation of Uninstructed Energy to Each Load and Resource**

ISO uninstructed energy is separately calculated for each load and each unit, but then settled with the ISO on a net basis. Even though most of NCPA Pool load (except Lompoc and possibly Roseville) and SNCL load will be aggregated at the same point, NCP1, our settlements software automatically assigns uninstructed energy to NCPA Pool and SNCL based on their separate load schedules and recorded data. Therefore, the assignment of uninstructed energy to NCPA Pool and SNCL load is straightforward. Assignment of uninstructed energy to resources that are not jointly owned is also straightforward.

Assignment of uninstructed energy to each unit that is jointly owned is more complex, and is done based on each operating entity's ownership rights to the unit and their final schedules. Each operating entity can schedule part of the unit to meet load (called market energy schedules), part of the unit can be scheduled to supply or self-provide ancillary services or supplemental energy and therefore the unit may be instructed by the ISO, and part of the unit can be left available for following load up. (Currently we assign uninstructed energy to the joint operating entities following an allocation basis that is based not on load following, but on the principal that units are expected to follow their ISO hour-ahead schedules, and will move up or down only in response to the price of imbalance energy. Therefore currently, the primary allocation basis for positive uninstructed energy is unit available capacity.) Going forward we must revise the allocation scheme to recognize that load following is the reason for moving units away from the ISO HA schedules, therefore the primary allocation basis for uninstructed energy are the final market energy schedules, limited by available capacity.

The enclosed spreadsheet called *UnitEnergyAllocation* attempts to illustrate the allocation of uninstructed energy for a single unit. Imbalance energy is subdivided into instructed energy (IE) and uninstructed energy (UE). IE is



allocated directly to the operating entities based on their a/s or supplemental bids. UE is allocated to the final energy schedules, limited by operating entity by available capacity. Excess UE is allocated first to the operating entity with available capacity. Excess UE above the project total capacity (actual meter data can come in above the unit pMax) is allocated on project ownership share.

### **Final Uninstructed Energy Settlement Between NCPA Pool & SNCL**

Once the above process has determined which operating entities have uninstructed energy, we believe that we need to account for those times when one operating entity's resource has been used to meet the other's load. Hopefully because of the final schedule mechanism described above the amount of this cross-delivery will be minimized. However, some cross-delivery will occur, particularly because of real-time decisions that will be made to run units without particular regard to which load is moving, and even more if the operating entities jointly decide to run a particular unit to follow load because, for example, it is cheaper, regardless of whose load is being followed.

Tracking this type of cross-delivery is particularly simple. The ISO requires that HA schedules be in balance, and NCPA-SC requires that each of our internal accounts have balanced HA schedules. Therefore, it is only necessary to look at the allocation of uninstructed energy (ISO Settlements Charge Code 407) to each operating entity to determine if the UE on generation netted with UE on load is in balance or not.

The net uninstructed energy with the ISO represents the net short or long position of the MSS as a whole. If either operating entity is surplus when the MSS as a whole is surplus, then the one that is surplus is selling to the ISO. If either entity is deficit when the MSS as a whole is taking imbalance energy, then the one that is deficit is buying from the ISO. The attached spreadsheet called *MSS&PoolBilling* demonstrates this arithmetic. These purchases and sales with the ISO are at ISO imbalance price. As the spreadsheet shows, once the ISO imbalance energy has been assigned, the entities are in balance as a whole, but one may be selling to the other. The question then becomes how shall we settle for this sale between the operating entities? Notice also that we have not yet identified which resource made the sale, just that one entity sold to the other.

From a process and accounting point of view, the simplest method of settling for the sale between the operating entities is to establish an appropriate price for the energy and do a financial settlement for the energy in each period. It is probably not appropriate to use the ISO imbalance price because the whole idea is to stay out of the ISO imbalance energy market as much as possible. Pool MCP is

available as a settlement price. Another theory would be to use the cost of the highest-cost resource actually in use each hour by the operating entity that is excess, since that is the resource that would have been reduced in real-time had we not been load following for each-other's load. A new computer program will do the tracking of the uninstructed energy between the operating entities, once the final principles are nailed down.

### **Automated Tracking of the Energy For Each Unit And Each Operating Entity**

#### **FA3.03**

So far the only unit that has an automated process accounting for its fuel usage and entitlement is the Collierville Hydro project. FA3.03 is the automated water-share program that runs in real-time. Assignment of fuel and other variable costs for the other units is done manually each month, based primarily on ownership share. To the extent that a sale of power between the operating entities is determined to be from the hydro project, then adjusting the water shares to reflect the ultimate consumer of the power is relatively easy.

The FA3.03 water share program runs on the SCADA system in real-time, and allocates the water between SNCL and Pool each interval (currently half-hourly, but under ISO protocols this will be hourly). We have recently modified the FA3.03 computer program to get access to the energy schedules from Aces, in preparation for our scheduling with the ISO. We will now have to modify it to read the new final schedules from Aces, and we have yet to modify it to read the ISO instructions. Basically, the logic of FA3.03 must be made to duplicate the uninstructed energy logic in the settlements software so that the water shares between the operating entities are allocated on the same basis as the energy credit that each receives. Further enhancements to the FA3.03 program will be to take into account the proper ramping of the units that the ISO expects, and also the hourly loss-factors (GMM's), both of which are already included in the Aces energy settlements calculation.

#### **Combustion Turbines**

A protocol exists to track the energy and fuel used and allocates to the operating entities for the simple cycle CT's. Currently this is kept up manually. It might be possible to adapt this protocol to handle the transactions described here, and this could be automated, including an hour-by-hour calculation of fuel used based on unit load and heat rate.

#### **MSS Billing Principles**

Before we can run the MSS bill, we must make a sequence of calculations using the meter data of the cities, to determine that portion of the meter data that

corresponds to the part of our member's recorded load that is scheduled with the ISO, and that part that was scheduled with PG&E for Western 2948A power.

### **Meter Data Calculations**

The first calculations using meter data has to do with adjustment for losses and aggregation of meter data following the ISO's approved logical meter calculations. We must add internal member generation back in to recorded city gate load. We must apply gmm's to the recorded generation data to adjust to the ISO grid. We must separate out the recorded generation data that is used to serve load, as opposed to responding to ISO instructions.

Special treatment is required for Graeagle. We will not schedule for Graeagle with the ISO because it is too small, and because we have no control over its output. The ISO will consider Graeagle to be an offset to Plumas load. Because its output is not owned by Plumas, its will also be added in to Plumas load in MSS Billing, and MSS Billing will treat it as a separately owned resource.

### **Allocations of Western 2948A Power**

Western 2948A Power will be scheduled with PG&E, not the ISO. We will schedule 2948A power at the same level of aggregation that we will schedule the rest of our load with the ISO, namely, by demand zones NCP1 and NCP2, and Roseville separate (so PG&E can keep Roseville 2948A deliveries off the ISO grid).

The current logic that we use to allocate 2948A power to the cities will be mostly preserved. The one difference is that since Lompoc is in a separate zone, and their Western deliveries must be separately scheduled with PG&E, Lompoc Western 2948A delivery will be predetermined by their schedules. Western power within NCP1 will be allocated in the same way the Western power is allocated today to coincident IA load.

This is the second step in adjusting recorded city load data to produce the recorded data that represents the portion of our loads that are scheduled with the ISO.

### Pre-processing to Adjust for Deliveries to/from SNCL and ISO

As was described above, prior to doing any MSS allocations, we already determined what power was delivered between SNCL and NCPA Pool. Also, as was stated above, that delivery needs to be settled separately at an appropriate price. Sales to SNCL are allocated to the resources under the philosophy that the resources are generating extra to satisfy SNCL. Purchases from SNCL are allocated to the loads under the philosophy that the loads must buy from SNCL because there are insufficient resources within the Pool to satisfy the full need.

Now in the MSS Billing process we need to allocate to the MSS operating entities and take off the top, as an adjustment to the recorded data, any power that might have flowed between the Pool and Santa Clara, and any actual net imbalance energy with the ISO. Page 2 of the spreadsheet *MSSPoolBilling* illustrates these concepts.

### ISO Generation Charges and Revenues Except Energy

All ISO charges and revenues associated with generation, including revenues for the provision of ancillary services including self-provision, will be allocated directly to the project owners, as is presently done. The allocation of these revenues between NCPA Pool, Santa Clara and TID is done based on individual operating entity schedules including ancillary services or supplemental bids, the unit capacity schedules for the entities, and project share.

One issue about charges and revenues associated with generation is the settlement of self-provided a/s. Self-provided a/s as it is done in the ISO world is not what you would expect. The settlement for self-provision is treated essentially the same as if we had bid to sell Project a/s to the ISO, and the generator receives a credit

### ISO Demand-based Charges Except Energy

With regard to ISO load based charges to MSS operating entities, most ISO charges and revenues are allocated within the MSS based on the sum of recorded load and exports, by zone (NP15 and ZP26). Some ISO charges and revenues that are specifically mentioned next are allocated within the MSS on a basis other than recorded load and exports. (One exception to this may be the special treatment for Roseville that may be arranged because they are directly connected to the Western transmission grid.)

### ISO Import-Export Charges/Revenues

Members individually subscribe to imports and exports in varying participating percentages, recorded in the Trade Manager system. Therefore, import-export-related ISO charges and revenues should be allocated to those members who participate in each individual deal. The following is a current list of import-export-related charges/revenues:

- 0407 Import and export deviation (a subset of all 0407's), charged as part of the energy settlement, described above
- 0256 HA Interzonal Congestion Debit to SC's
- 0521 Control Area Services Charge due to Exports GMC
- 0522 Interzonal Scheduling GMC on NFU path use
- 0203, 0253 Interzonal Congestion for NFU transmission at tie-points
- 0382, 0383 Wheeling (exports only)

### ISO Internal Inter-zonal congestion charges/revenues

Inter-zonal congestion charges across internal paths, such as Path 15, must be allocated to those members who use the path. Thus, the portion of 0203 and 0253 Interzonal Congestion that is due to using internal paths will be allocated to those members to the extent they cause the congestion charge or the counter-flow revenue across each path. Members who use internal interzonal paths will accrue their portion of 0522 Interzonal Scheduling GMC allocated to internal paths. Currently this primarily affects Lompoc, which is in zone ZP26. .

### Wheeling

Wheeling is the charge for the use of the ISO grid for MSS load (non-PTO wheeling) and NFU exports from the ISO Grid. This charge is not part of the ISO's normal automated settlements, primarily because the ISO can not identify, in all cases, what part of a load is satisfied by deliveries using ISO transmission, and what part is not.

The ISO requires each SC to do this calculation at the end of each month and submit the calculation to them. When we calculate the use of ISO transmission that met our member loads, we will take appropriate credit in our calculation for power that is delivered over CVP transmission direct to Roseville from COT (delivered through Tracy). PG&E will continue to honor their obligations under 2948A, which provides for power delivered to city-gate, including transmission. Our calculation of wheeling costs will not include that part of our load.

## **Regional and Zonal Allocation and Price Differences**

Some ISO charges and revenues are allocated to SC's on a regional or zonal basis, primarily to recognize the effect of congestion between the zones. Even when charges are allocated on a regional basis, which means those zones between which there is no congestion, the charges are presented to NCPA-SC on a zonal basis. Such charges or revenues have rates that can differ between the zones.

The following is a list of current ISO charges and revenues that are allocated to NCPA on a zonal basis:

Uninstructed Energy - CT 0407

Ancillary Services Obligation Costs - CT 0111, 0112, 0114, 0115 and 0116

Intra-zonal Congestion - CT 0452

Unaccounted For Energy - CT 0406

Distribution of Preempted Reserve 1061, 1062, 1064, 1065, 1066

Energy Exchange Program Costs - CT 1487

Interzonal Congestion - CT 0203, 0253

Charge type 0256, SC Charge for NFU transmission use when a line is curtailed between the DA and HA markets, is unique in that it is a charge that is allocated on a branch group basis, which basically means to the NFU users of a transmission path. Should we incur this charge for Path 15, we will allocate this to the users of Path 15, which would be Lompoc if we have no other users of Path 15. If we incur this charge for the NFU use of an external tie, we will allocate this to the users of that path, based on the individual Pool member's participation percentage in the NFU imports or exports that were involved.

### ISO Prior Period Adjustments

One of the most troublesome issues are the ISO's prior period adjustments. From time to time the ISO produces prior period adjustments for periods as much as a year or more in arrears. The format of the ISO's prior period adjustment billing files is inconsistent with regard to the billing interval (sometimes on a 10-minute basis, sometimes on an hourly basis, sometimes on a monthly basis) and format required in their own specifications. Because of these inconsistencies, we have not been able to automate the processing of the ISO's prior period adjustments and a separate and accurate validation and allocation becomes problematic. We review each billing statement from the ISO on a case-by-case basis, and allocate prior period adjustments in an appropriate way, normally monthly and based on the allocation of the original charge or revenue. The timing and presentation of the prior period adjustments to the Pool members will depend in large part on when and how the adjustments come to us from the ISO.

## APPENDIX E

Unit Energy Allocation Page 1

### Energy Allocation For A Unit to its MSS Owners

Allocation basis of imbalance energy (for instructed energy (IE) and uninstructed energy (UE)

Positive UE allocated to energy schedules, limited by available capacity

Excess positive UE allocated first to owner with available capacity, limited by available capacity

Excess UE above project total capacity allocated by ownership share

Negative UE allocated to energy schedules

IE allocated to bids

Note: The blue cells below are the final results

Consider a hypothetical plant of 200mw

Two owners	Own 1 %	0.50	Own 2 %	0.50
------------	---------	------	---------	------

ISO Instruction	10
-----------------	----

Meter Data	105
------------	-----

Owner	1.00	2.00
-------	------	------

ISO HA Energy Schedule	30.00	40.00
------------------------	-------	-------

ISO A/S Bid	10.00	15.00
-------------	-------	-------

ISO A/S Energy (IE)	4.00	6.00
---------------------	------	------

ISO No Pay	0.00	0.00
------------	------	------

ISO Available Capacity	60.00	45.00
------------------------	-------	-------

ISO UE	25	
--------	----	--

Note: We will not allow an owners capacity to go negative

NCPA Final Schedule	30.00	65.00	
ISO A/S Bid	10.00	15.00	
ISO A/S Energy (IE)	4.00	6.00	
ISO No Pay	0.00	0.00	
Final Available Capacity	60.00	20.00	Note: We will not allow an owners capacity to go negative
UE After Final Schedules	0		

## APPENDIX E

### Unit Energy Allocation Page 2

#### How Energy and Imbalance Energy Would be Allocated Based on the Original ISO HA Schedules

ISO HA Schedule	30.00	40.00		
ISO A/S Energy	4.00	6.00		
Alloc of ISO UE:				
Alloc 1 to energy schedules	10.71	14.29	Unallocated	
Alloc 1 capped by AC	10.71	14.29 UE	0.00	
Revised AC	49.29	30.71		
Alloc 2 to available capacity	0.00	0.00		
Alloc 2 capped by AC	0.00	0.00 UE	0.00	
Alloc 3 to ownership share	0.00	0.00 UE	0.00	
Total Energy Towards Load	40.71	54.29	Control Balance to Meter	0.00
No Pay Penalty Basis	0.00	0.00		

#### Final Energy and Imbalance Energy Allocation Based on Final NCPA Schedules

ISO HA Schedule	30.00	40.00	
Incremental Final Schedule	0.00	25.00 UE	
ISO A/S Energy	4.00	6.00	
Alloc of UE After Final Schedules:			
Alloc 1 to energy schedules	0.00	0.00	Unallocated
Alloc 1 capped by AC	0.00	0.00 UE	0.00



Revised AC	60.00	20.00		
Alloc 2 to available capacity	0.00	0.00		
Alloc 2 capped by AC	0.00	0.00 UE	0.00	
Alloc 3 to ownership share	0.00	0.00 UE	0.00	
Total Energy Towards Load	30.00	65.00	Control Balance to Meter	0.00
No Pay Penalty Basis	0.00	0.00		

Note: The above rows labeled as UE are those that represent an allocation basis of actual UE from the ISO

Note: This spreadsheet does not include bidding to provide supplemental energy. Supp energy instructions are allocated to the bids just like ancillary services, but the supp bid does not reduce the owner's available capacity. If the owner is already producing imbalance energy into that capacity that covers the supp bid & the ISO instructs the unit for supp, the owner would simply get less energy from the unit, and some other unit would have to be ramped up to cover the owner's load.

This spreadsheet also does not include unit ramping, or loss factors.

**APPENDIX E**  
MSS Billing Page 1  
**MSS Operator - Settlement of Uninstructed Energy & MSS Billing Basis**

**Settlement of UE Between NCPA & SNCL**

Note: You may change data in yellow cells  
However, for each entity the HA resources and loads must balance

Consider an example of 3 resources and 3 loads owned by the two operating entities

NCPA				SNCL			
	HA Sched	Meter	0407 UE		HA Sched	Meter	0407 UE
R1	40	66	26	R4	18	28	10
R2	30	39	9	R5	22	13	-9
R3	50	50	0	R6	40	30	-10
Tot	120	155	35	Tot	80	71	-9
	HA Sched	Meter	0407 UE		HA Sched	Meter	0407 UE
L1	15	30	15	L4	43	30	-13
L2	20	45	25	L5	17	20	3
L3	85	72	-13	L6	20	22	2
Tot	120	147	27	Tot	80	72	-8
Net NCPA UE			8	Net SNCL UE			-1
Net ISO UE			7				

Note: For a jointly owned resource, meter data is the result of an allocation based on ownership entitlement and final schedules

Pos Net UE Means Resources > Loads

Neg Net UE Means Loads > Resources

Allocate ISO UE to the entities as follows:

If Net ISO UE is positive, and only one entity has net positive UE, allocate all to that entity

If Net ISO UE is positive, and both entities have net positive UE, allocate to each pro rata

If NET ISO UE is negative, and only one entity has net negative UE, allocate all to that entity

If NET ISO UE is negative, and both entities have net negative UE, allocate to each pro rata

Results (+ Power Sold, - Power Bought):

Net NCPA UE	8	Net SNCL UE	-1
Sold/Bought With ISO	7	Sold/Bought With ISO	0
Sold/Bought With SNCL	1	Sold/Bought With SNCL	-1

## APPENDIX E

MSS Billing Page 2

### NCPA Pool Settlement

Pool settlement will be done based on meter data, after adjustment for the power sold/bought with ISO and SNCL

NCPA

	Meter	To ISO	To SNCL	Pool Billing Basis
R1	66	2.98	0.43	62.59
R2	39	1.76	0.25	36.99
R3	50	2.26	0.32	47.42

Tot	155	7.00	1.00	147.00
			From	
	Meter	From ISO	SNCL Pool Billing Basis	
L1	30	0.00	0.00	30.00
L2	45	0.00	0.00	45.00
L3	72	0.00	0.00	72.00
Tot	147	0.00	0.00	147.00

Note: Resources sell to ISO/SNCL, Loads buy from ISO/SNCL, prorated on meter

APPENDIX F

CAISO SECURITY DEPOSIT  
NORTHERN CALIFORNIA POWER AGENCY  
ESTIMATED SCHEDULING COORDINATION ISO NCPA BALANCING ACCOUNT  
UPDATED AS OF JUNE 18, 2002

<b>PLAN:</b> When PG&E Interconnection Agreement ends, transfer I.A. Security Deposit to NCPA SC.Balancing Account.				
Required by ISO--Place in NCPA/ISO Escrow Account	GMC Portion	\$ 734,671	6.2%	
Req'd by NCPA (More by ISO if L-T Bond Rating < A-)	Balancing Acct Held by NCPA	11,044,004	93.8%	
	Total	<u>\$11,778,675</u>	<u>100.0%</u>	
<b>RISK:</b> PG&E does not release I.A. Security Deposit at termination date of I.A. until all liabilities thereunder no longer exist. If this happens, at least some funding of SC would have to come from members.				

Participant	ESTIMATED ANNUAL (12 Mos.) ISO CHARGES		NCPA BAL. ACCOUNT 31.7001%	FUNDED BY IA SECURITY (Note A)	ADD'L OR (EXCESS) FUNDING
	%	\$			
Alameda	7.7498%	\$ 2,699,954	\$ 747,260	\$ 881,322	\$ (134,062)
Biggs	0.3461%	120,576	41,778	11,850	29,928
Gridley	0.3460%	120,560	54,501	20,620	33,881
Healdsburg	1.6499%	574,797	157,270	191,795	(34,525)
Lodi	11.0178%	3,838,483	1,237,662	536,651	701,011
Lompoc	3.7880%	1,319,718	351,373	192,161	159,212
Palo Alto	2.8894%	1,006,639	457,424	321,467	135,957
Plumas-Sierra	0.7275%	253,458	97,248	42,520	54,728
Roseville	13.1915%	4,595,779	1,642,005	411,518	1,230,487
Santa Clara	56.1350%	19,556,921	6,016,371	-	6,016,371

Turlock					
Ukiah	2.1590%	752,178	241,112	293,096	(51,984)
	100.0000%	\$ 34,839,062	\$ 11,044,004	\$ 2,903,000	\$8,141,004
			Note C	Note B	

**Note A:** NCPA Transmission Project funded the I.A. Security Deposit.

**Note B:** Stated value of investment maturing October 2, 2002.

**Note C:** Est'd based on highest three (3) months' ISO costs.

NORTHERN CALIFORNIA POWER AGENCY  
 \*FORECAST OF SCHEDULING COORDINATION FUNDING REQUIREMENTS  
 UPDATED JUNE 18, 2002

TYPE OF SCHEDULING COORDINATION COST	Average Monthly	Estimated Annual*
1. GRID MANAGEMENT CHARGE	\$244,890	\$2,938,683
2. ISO WHEELING	1,685,034	20,220,408
3. ANCILLARY SERVICES PURCHASED	428,235	5,138,821
4. SPIN & NON-SPIN SELF PROVISION CREDIT	(165,610)	(1,987,316)
5. PG&E RELIABILITY SERVICE CHARGE	710,706	8,528,466
TOTAL AVERAGE MONTHLY BILL	\$2,903,255	\$34,839,062

**PROPOSED BILLING PLAN TO MAINTAIN APPROPRIATE CASH FLOW:**

SEPARATE ESTIMATED BILL (for 1,2 & 5 above) INCLUDED WITH ESTIMATED MONTHLY POWER BILL PRIOR TO TRADE MONTH.

ADDITIONAL ESTIMATED BILL SENT APPROX. 15 DAYS AFTER END OF THE TRADE MONTH (for 3 & 4 above and imbalance energy and congestion).

NCPA PAYS PRELIMINARY ISO INVOICE 43 BUSINESS DAYS AFTER THE TRADE MONTH.

NCPA PAYS FINAL ISO INVOICE 56 BUSINESS DAYS AFTER CLOSE OF THE TRADE MONTH.

NCPA ISSUES TRADE MONTH FINAL SETTLEMENT (subject to future ISO prior period adjustments) APPROX. 5 DAYS LATER.

**\* Includes Santa Clara. Estimated Annual above is for a 12 month period.**



**NORTHERN CALIFORNIA POWER AGENCY  
SCHEDULING COORDINATION SECURITY DEPOSIT**

	ORIGINAL TRANSMISSION PROJECT PERCENTAGE SHARE	POOL SHARE
Alameda	30.3590%	\$ 881,322
Biggs	0.4082%	11,850
Gridley	0.7103%	20,620
Healdsburg	6.6068%	191,795
— Lodi	18.4861%	536,651 —
Lompoc	6.6194%	192,161
Palo Alto	11.0736%	321,467
Plumas-Sierra	1.4647%	42,520
Roseville	14.1756%	411,518
Santa Clara		
Turlock		
Ukiah	10.0963%	293,096
	<u>100.0000%</u>	<u>\$ 2,903,000</u>

INTERCONNECTION AGREEMENT  
BETWEEN  
PACIFIC GAS AND ELECTRIC COMPANY  
AND  
THE NORTHERN CALIFORNIA POWER AGENCY  
AND  
CITY OF ALAMEDA,  
CITY OF BIGGS,  
CITY OF GRIDLEY,  
CITY OF HEALDSBURG,  
CITY OF LODI,  
CITY OF LOMPOC,  
CITY OF PALO ALTO,  
CITY OF UKIAH,  
AND  
PLUMAS-SIERRA RURAL ELECTRIC COOPERATIVE

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INTERCONNECTION AGREEMENT  
BETWEEN  
PACIFIC GAS AND ELECTRIC COMPANY  
AND  
THE NORTHERN CALIFORNIA POWER AGENCY  
AND  
CITY OF ALAMEDA,  
CITY OF BIGGS,  
CITY OF GRIDLEY,  
CITY OF HEALDSBURG,  
CITY OF LODI,  
CITY OF LOMPOC,  
CITY OF PALO ALTO,  
CITY OF UKIAH,  
AND  
PLUMAS-SIERRA RURAL ELECTRIC COOPERATIVE

**PREAMBLE**

This Interconnection Agreement is made this 12 day of July\_\_\_\_, 2002, by and between Pacific Gas and Electric Company ("PG&E"), a corporation organized and existing under the laws of the State of California, and the Northern California Power Agency("NCPA"), a Joint Powers Agency of the State of California, and the California Cities of Alameda, Biggs, Gridley, Healdsburg, Lodi, Lompoc, Palo Alto, Ukiah, and the Plumas-Sierra Rural Electric Cooperative, Inc., (hereinafter referred to collectively as "NCPA Member Customers"), any or all of which are hereinafter referred to individually as a "Party" and collectively as "the Parties."



## **RECITALS**

**2.1** Whereas, it is the policy of the Federal Energy Regulatory Commission (FERC) that open and non-discriminatory access to transmission be provided through transmission systems comprising as large an area as possible under the supervision and direction of an Independent System Operator or a Regional Transmission Organization; and

**2.2** Whereas, PG&E is a public utility providing both wholesale and retail electric power and energy sales and transmission and distribution services in northern and central California and owns an extensive electric transmission system within that area; and

**2.3** Whereas, PG&E has transferred operational control of its transmission system to the California Independent System Operator (ISO) as part of the ISO Controlled Grid and has filed a Transmission Owner Tariff (PG&E TO Tariff) as accepted by FERC providing for access to transmission service over PG&E's electric system under the administration of the ISO; and

**2.4** Whereas, PG&E is a Participating Transmission Owner subject to the direction of the ISO in the operation of its transmission system and provision of transmission access as part of the ISO Controlled Grid pursuant to the terms of the ISO Tariff and the PG&E TO Tariff; and

**2.5** Whereas, NCPA is a public agency engaged in the generation and transmission of electric power and energy and created by a joint powers agreement dated July 19, 1968, as amended, entered pursuant to Chapter 5, Division 7, Title 1 of the California Government Code commencing with Section 6500; and

**2.6** Whereas, NCPA has entered, or intends to enter, into certain agreements with the ISO including, but not limited to, the NCPA MSS AGGREGATOR AGREEMENT to have electric power delivered to it at each Point of Interconnection using transmission service available to it;

**2.7** Whereas, this Agreement is intended to provide for the terms and conditions of interconnections between the Electric Systems of the Parties from and after the termination and replacement of the existing July 29, 1983 Interconnection Agreement between them;

**2.8** Whereas, the Parties agree to operate their respective electric systems in accordance with Good Utility Practice consistent with the requirements of this Agreement;

**2.9** Whereas, the Parties intend to cooperate in the operation of their respective Electric Systems to maximize their mutual benefits under this Agreement.

### **3 AGREEMENT**

NOW, therefore, in consideration of the mutual covenants herein set forth, the Parties agree as follows:

### **4 DEFINITIONS**

The following terms, when used in this Agreement with the initial letters capitalized, other than proper names, whether in the singular, plural or possessive, shall have the meanings indicated below. Some terms are defined by reference to definitions in the Master Definitions Supplement, included as Appendix A to the ISO Tariff.

#### **4.1 Agreement**

This Interconnection Agreement between PG&E and NCPA and its Appendices, as it may be amended.

#### **4.2 Ancillary Services**

As defined in the Master Definitions Supplement to the ISO Tariff.

#### **4.3 Business Day**

As defined in the Master Definitions Supplement to the ISO Tariff.

#### **4.4 Control Area**

As defined in the Master Definitions Supplement to the ISO Tariff.

#### **4.5      Control Area Arrangement**

Arrangements, which may include an MSS or MSS Aggregator Agreement as provided for in the ISO tariff or an Operating Agreement substantially similar to a Metered Subsystems Agreement between a Party and the Control Area Operator in which the Party agrees to self provide or procure the necessary resources and services and perform operations to meet Control Area operating requirements and to maintain the operating reliability and integrity of the Control Area's electric power system in an economic manner consistent with Good Utility Practice.

#### **4.6      Control Area Operator**

The entity that is responsible for operating a Control Area. For purposes of this Agreement, the Control Area Operator is the ISO or its successor.

#### **4.7      Control Center**

NCPA's electric operations control center that is staffed at all times and is responsible for, among other things, its electric system switching operations.

#### **4.8      Cost**

All just, reasonable, necessary and prudently incurred expenses or capital expenditures, including but not limited to those for operation, maintenance, engineering and facilities studies, adverse impact identification, adverse impact mitigation, contract modification, administrative and

general expenses, taxes, depreciation, and fees for consultants, as determined in accordance with the FERC Uniform System of Accounts as such may be amended or superseded from time to time, and costs of capital. The appropriate components of the Cost, as defined herein, shall be applied for the particular transaction performed.

**4.9      CPUC**

The California Public Utilities Commission or its regulatory successor.

**4.10      Demand**

As defined in the Master Definitions Supplement to the ISO Tariff.

**4.11      Effective Date**

The date specified as the Effective Date of this Agreement in Section 5.2 hereof.

**4.12      Electric System**

All properties and other assets, now or hereafter existing, which are leased to, licensed to, owned by, or controlled by a single person or entity, and used for or directly associated with the generation, transmission, transformation, distribution, purchase or sale of electric power, including all additions, extensions, expansions, and improvements thereto. To the extent a person or entity is not the sole owner of an asset or property, only that person's or that entity's ownership interest in such asset or property

shall be considered to be part of its Electric System. For purposes of this Agreement, NCPA's Electric System shall include only the facilities in northern and central California which are used to serve the NCPA load.

**4.13     Emergency or System Emergency**

As defined in the Master Definitions Supplement to the ISO Tariff.

**4.14     Engineering and Operation Committee**

A joint PG&E and NCPA committee established pursuant to Section 9.

**4.15     Existing Contracts**

The contracts between the Parties in existence on April 1, 1998 (including any contracts entered into pursuant to such contracts) as may be amended in accordance with their terms or by agreement between the parties thereto from time to time or by order or requirement of FERC or any court having jurisdiction, provided that any contract shall cease to be an Existing Contract when its initially specified term ends, unless extended by agreement of the parties thereto or when it may be earlier terminated; and contracts between PG&E and the Western Area Power Administration, and contracts between or tariffs involving PG&E and the Transmission Agency of Northern California, in which NCPA has a beneficial interest.

**4.16     Facility Study**

An engineering study to determine required electric system modifications to accommodate a new Point of Interconnection or a modification of an existing Point of Interconnection, including the cost and scheduled completion date for such modifications that will be required to provide needed services.

**4.17     FERC**

The Federal Energy Regulatory Commission or its regulatory successor.

**4.18     FPA**

The Federal Power Act as it may be amended.

**4.19     Good Utility Practice**

As defined in the Master Definitions Supplement to the ISO Tariff

**4.20     Interconnection Capacity**

The rated maximum capability of Interconnection Facilities, for power transfers at Points of Interconnection.

**4.21     Interconnection Facilities**

Electric facilities which establish or modify Points of Interconnection where PG&E's Electric System is connected to the Electric System of NCPA or a Third Party.

**4.22     Independent System Operator (ISO)**

The California Independent System Operator Corporation (ISO) or its successor that operates the ISO

Control Area and controls the transmission facilities of all Participating TOs and dispatches certain generating units and loads.

**4.23     ISO Controlled Grid**

The system of transmission lines and associated facilities of all Participating TOs that have been transferred to the ISO's operational control.

**4.24     ISO Tariff**

The currently effective California Independent System Operator Tariff, on file at FERC as FERC Electric Tariff First Revised Vol. No. 1, as it may be modified or superseded from time to time.

**4.25     Participating TO**

As defined in the Master Definitions Supplement to the ISO Tariff.

**4.26     PG&E Transmission Owner (TO) Tariff**

PG&E's Transmission Owner Tariff on file with the FERC as Electric Tariff Volume 5, No. 6 Revised, as it may be modified from time to time.

**4.27     PG&E Wholesale Distribution (WD) Tariff**

PG&E's Wholesale Distribution Tariff on file with the FERC as original Volume 4, as it may be modified from time to time.



#### **4.28     Points Of Interconnection**

The physical connections of PG&E's transmission or distribution lines with NCPA 's Electric System as specified in Appendix A hereto, as that Appendix may be modified from time to time.

#### **4.29     Remote Telemetry Unit (RTU)**

A device that relays real-time data: kW, kVar, voltage, breaker status, etc., to central points designated by the Parties, generally a control room, for monitoring purposes.

#### **4.30     Responsible Meter Party**

A Party having the responsibility for providing, installing, owning, operating, testing, servicing and maintaining meters and associated recording or telemetering equipment at each Point of Interconnection. Unless otherwise specified herein, NCPA shall be the Responsible Meter Party under this Agreement.

#### **4.31     Scheduling Coordinator**

As defined in the Master Definitions Supplement to the ISO Tariff.

#### **4.32     Service Area**

That area within the geographic boundaries of the areas electrically served at retail, now or in the future, by PG&E or by NCPA.

#### **4.33     System Impact Study**

An engineering study conducted by PG&E at NCPA's request to determine System Reinforcements required on PG&E's Electric System necessary to establish or modify a Point(s) of Interconnection or to address a Significant Operational Change pursuant to Section 10.

#### **4.34     System Reinforcements**

Reinforcements to PG&E's Electric System, including but not limited to those identified by a System Impact Study, necessary to establish or maintain the Transfer Capability to a Point of Interconnection. System Reinforcements may be required when a Point of Interconnection is added or modified, when a Significant Operational Change pursuant to Section 10 is proposed, or when necessary to serve electric load reliably, or required by Good Utility Practice. System Reinforcements are limited to facilities required on PG&E's Electric System and ordinarily would not include Interconnection Facilities required at the Point of Interconnection.

#### **4.35     Third Party**

A person or entity other than PG&E or NCPA.

#### **4.36     Transfer Capability**

The measure of the capability of interconnected Electric Systems to move or transfer power in a reliable

manner from one point to another over all transmission lines between those points under specified system conditions.

**4.37      Transmission Arrangement**

An agreement or tariff, either the ISO Tariff or a separate contract or tariff which enables NCPA to deliver power and energy to meet its electric power requirements

**4.38      Transmission Operations Center**

PG&E's operations center from which it directs operations of its transmission system.

**4.39      Transmission Owner (TO)**

As defined in the Master Definitions Supplement to the ISO Tariff.

**4.40      Uncontrollable Force**

As defined in the Master Definitions Supplement to the ISO Tariff.

**4.41      Upgrade Facility**

A new or upgraded Interconnection Facility and/or System Reinforcement constructed or installed pursuant to this Agreement.

**5 SCOPE**

**5.1      Interconnected Operations**

This Agreement governs the interconnected and coordinated operation of PG&E's Electric System, a portion of which has been turned over to the operational control of the

ISO, and NCPA's Electric System. As of the date of this Agreement, the ISO operates the Control Area in which the Parties operate their respective Electric Systems. The Parties agree that, during the term of this Agreement and unless otherwise provided for by amendment of this Agreement, that portion or those portions of the Parties' Electric Systems that are interconnected shall be operated in parallel pursuant to the terms and conditions of this Agreement and consistent with Good Utility Practice and their respective Control Area Arrangements. Each Party shall at all times to the maximum extent practicable avoid causing any adverse impact on the Other Party's Electric System.

Each Party shall at all times either operate its own Control Area or operate within an established Control Area consistent with its Control Area Arrangements.

The Parties specifically intend that this Agreement shall relate only to their rights and obligations pertaining to the interconnection of their Electric Systems.

Under this Agreement, neither Party undertakes to provide or make available any Control Area services, transmission service, distribution service, power or energy sales or services or Ancillary Services for the other Party or any Third Party, but this Agreement does not supersede rights or obligations as provided in Existing Contracts. Nothing in this Agreement shall prevent either party from seeking an

order under Sections 211 and 212 of the FPA subject to the provisions for use of ISO and TO tariff service of this section.

Failure by a Party to operate in a Control Area or to maintain in effect Control Area Arrangements shall be deemed a material breach of this Agreement and cause for termination and disconnection, after a fair opportunity is given to that Party to obtain or reestablish such operation in a Control Area or Control Area Arrangements. If any Party operates without being located in an established Control Area or without Control Area Arrangements in effect, that Party shall fully indemnify and make whole the other Party for any costs imposed or other damages caused to the other Party.

## **5.2 Effective Date**

The term "Effective Date" as used in this Agreement shall mean 0000 hours of September 1, 2002, or the first day of the first month following the date on which FERC accepts this Agreement for filing and permits it to be placed into effect without material change or material new condition unacceptable to either Party, whichever is later.

If FERC sets this Agreement for hearing to determine whether it is just and reasonable and otherwise lawful, then this Agreement shall become effective on the date it is permitted to be placed into effect and subject to any conditions imposed by FERC. The ordering of such a hearing in

and of itself shall not be considered a material change. However, in the event FERC makes any material change or imposes a material new condition unacceptable to either Party, the Parties shall promptly enter into good faith negotiations in an attempt to achieve a mutually agreeable modification to this Agreement to address any such material change or material new condition.

The Parties agree to work diligently to obtain timely acceptance of this Agreement and all of its provisions by FERC, and agree that NCPA shall be entitled to prior review of PG&E's initial filing with FERC seeking acceptance of this Agreement for filing.

### **5.3 Termination**

This Agreement shall terminate on : (i) the occurrence of the fifth anniversary of the Effective Date or the tenth anniversary of the Effective Date if the Parties have agreed to such five year extension no later than the fourth anniversary of the Effective Date; or (ii) the end of the 12<sup>th</sup> month following the date on which either Party gives the other Party written notice that this Agreement shall be terminated which notice shall not be given prior to the forth anniversary of the Effective Date; or (iii) as provided in Section 10.

## **6 POWER AND TRANSMISSION ARRANGEMENTS**

### **6.1 Limitation on Parties Obligation**

The Parties acknowledge that this Agreement does not provide for either Party to furnish energy, transmission, distribution or Ancillary Services to the other Party, and in no circumstance shall either Party be responsible under this Agreement for providing any such services.

### **6.2 Transmission Arrangements**

NCPA is currently a party to several contracts that, among other things, provide Transmission Arrangements for the delivery of power to NCPA's Electric System. Nothing in this Agreement shall interfere with NCPA's rights, including those for transmission services, under those contracts provided, this exception shall not apply to the 1982 Interconnection Agreement between the Parties, which shall terminate on the date this Agreement becomes effective. Both Parties may make Transmission Arrangements, other than or in addition to such service from the ISO. Each Party shall act as its own Scheduling Coordinator or employ a Scheduling Coordinator to act for it. Neither Party shall have any obligation under this Agreement to serve as Scheduling Coordinator for the other Party or take on any other role in which it acts on behalf of the other Party as to the other Party's transactions.

### **6.3 Control Area Operations**

It is the intent of the Parties that NCPA and PG&E shall at all times be integrated into the ISO Control Area, except as provided in Section 9.5, and shall operate in accordance with Good Utility Practice and in compliance with applicable requirements of federal, state, and local laws, licenses, and permits. PG&E has and will have in effect various existing arrangements with the Control Area Operator. These arrangements include the Transmission Control Agreement, the Transmission Owner Tariff, Scheduling Coordinator Agreements, and UDC Operating Agreement, all of which enable PG&E to satisfy the obligations of operating within the ISO's Control Area. This agreement is subject to PG&E's obligations and responsibilities under those arrangements, and in the event of any inconsistency between those arrangements and this Agreement, the former shall control NCPA has entered into a MSS Aggregator Agreement with the ISO and such agreement qualifies as a Control Area Arrangement, that may be needed by the ISO for operation of the Control Area. This agreement is subject to NCPA's obligations and responsibilities under those arrangements, and in the event of any inconsistency between those arrangements and this Agreement, the former shall control



## **7 INTERCONNECTIONS**

Transfer of electric power between the NCPA and PG&E Electric Systems shall only occur at the Point(s) of Interconnection identified in Appendix A.

### **7.1 Interconnection Capacity**

Interconnection Capacity is determined by engineering studies that consider the physical rating of all equipment installed within the Interconnection Facilities at the Points of Interconnection. The E&O Committee shall periodically review the Interconnection Capacity to ensure that it is sufficiently maintained throughout the term of this Agreement.

### **7.2 Establishing or Modifying Point(s) of Interconnection**

Whenever NCPA decides to add or modify a Point of Interconnection at transmission voltage, 60 kV or more, it shall so notify the ISO in accordance with the ISO Tariff and PG&E in accordance with the PG&E TO Tariff. Upon PG&E's receipt of such notice, the Parties shall follow the procedures described in Sections 8 through 10 of the PG&E TO Tariff. Regarding disputes that might arise under this Section 7, if the PG&E TO Tariff conflicts with Section 23 of this Agreement, the TO Tariff shall govern. If NCPA decides to either modify or add a Point of Interconnection at distribution voltage, less than 60 kV, it shall so notify PG&E

in accordance with the requirements of the PG&E Wholesale Distribution Tariff. Upon PG&E's receipt of such notification, PG&E shall follow the applicable procedures and requirements of the PG&E Wholesale Distribution Tariff to determine what Upgrade Facilities, if any, shall be required. Upgrade Facilities required for the addition or modification of a Point of Interconnection at distribution voltage shall be accomplished pursuant to the requirements of the PG&E Wholesale Distribution Tariff. Regarding disputes that might arise under this Section 7 as related to service under PG&E WD Tariff, if the PG&E WD Tariff conflicts with Section 23 of this Agreement, the WD Tariff shall govern

**7.2.1 New Interconnection Facilities and  
Interconnection Facilities Upgrades**

If Upgrade Facilities are needed as a result of a NCPA notice to add or modify a Point of Interconnection pursuant to this Section 7, the Parties shall meet and confer on a mutually acceptable plan to complete the Upgrade Facilities. The Cost responsibility for Upgrade Facilities required as a result of NCPA's notice to add or modify a Point of Interconnection shall be determined based on the provisions of Section 8.1.2 of the PG&E TO Tariff or Section 15 of the PG&E Wholesale Distribution Tariff, as applicable, and Appendix C of this Agreement.

Any dispute regarding the actual capability of the existing transmission, distribution, or Interconnection Facilities, or the need for Upgrade Facilities, that will support the new or upgraded Point of Interconnection, or how the Cost responsibility for the necessary Upgrade Facilities should be allocated, shall be resolved through the dispute resolution procedures as set forth in Section 23.

#### **7.2.2 Construction Plan and Agreement**

Unless otherwise provided under the PG&E WDT or TO Tariff, or otherwise agreed to by the Parties, within thirty (30) calendar days after completion of a Facility Study, NCPA shall notify PG&E if it intends to proceed with the Upgrade Facility. The Parties shall then meet and confer on a mutually acceptable plan to complete the Upgrade Facility. If the Parties reach agreement on a plan for construction or installation of an Upgrade Facility, including responsibility for payment of the applicable Cost, the Parties shall enter into a separate agreement pursuant to Appendix C. If the Parties fail to reach such agreement, the matter should be resolved through the dispute resolution provisions in Section 23.

#### **7.2.3 Test Period for Interconnection**

The Parties shall cooperate in the testing of the Point(s) of Interconnection and of the Parties'

facilities prior to becoming operable consistent with Good Utility Practice.

### **7.3      NCPA Option As To Construction**

In any case in which NCPA is to be separately responsible, in whole or in part, for the Cost of an Upgrade Facility under this Section 7, or a System Reinforcement under Section 8, other than proportionately with all transmission customers, NCPA may elect to specify, in advance of its first payment of the costs of constructing or reinforcing facilities, the basis on which payments will be made. The options available to NCPA will include a refundable advance, ownership of that portion of the Upgrade Facility or System Reinforcement for which NCPA is paying, ownership with a leaseback, and any other method agreed to by the Parties, including whatever method may be proposed by PG&E. Specific terms and conditions, including compensation to NCPA appropriate to the basis of payment selected, will be agreed to prior to NCPA's first payment. The Parties recognize that uncertainties in tax treatment of the payments are such that undesirable tax consequences to PG&E may occur and, therefore, NCPA will indemnify and hold PG&E harmless from all net tax liability associated with any such payments. NCPA will be entitled to participate in the discussions and/or litigation with the Internal Revenue Service associated with the determination of such undesirable tax consequences for which

NCPA may be an indemnitor. If ownership is chosen by NCPA as the method of payment, the Control Area Operator, or PG&E, as appropriate under the terms of the Control Area Arrangements to which PG&E is a party, shall have complete control over facilities owned by NCPA and paid for under this provision. PG&E, in turn, may turn operational control of such facilities over to the ISO (or such other Control Area Operator as may be appropriate) under the terms of the Control Area Arrangement (or any successor agreement) to which PG&E is a party.

## **8 SYSTEM PLANNING COORDINATION**

Pursuant to the ISO Tariff, including Section 3.2, PG&E conducts planning studies of its Electric System annually to identify System Reinforcements or other modifications of its Electric System necessary to determine the Transfer Capability to reliably serve the expected loads connected to its Electric System including expected NCPA loads at Point(s) of Interconnection.

### **8.1 Planning Process**

In order for the Parties to include the effects of growth of NCPA's Electric System loads in its planning studies, NCPA shall provide PG&E with NCPA's electric load planning data by October 15 of each year. Such electric load planning data shall contain the best estimate of NCPA's Electric System load for the next five-year period being

served at Points of Interconnection. The initial forecast shall be submitted to PG&E within 30 days of the Effective Date. Both Parties shall be responsible for participating in planning for the construction of any necessary System Reinforcements as provided in the PG&E TO Tariff Sections 8 through 10.

### **8.2 System Reinforcements**

If, as a result of its annual planning review process, PG&E determines, through studies conducted pursuant to the ISO Tariff, including Section 4.8.1 thereof, and in accordance with PG&E TO Tariff Section 9, that a need exists to construct System Reinforcements that will have a direct effect on NCPA, PG&E shall inform NCPA through a notice pursuant to Section 32. The Parties shall then follow the applicable procedures of the PG&E TO Tariff Sections 8 through 10.

## **9 OPERATING PROVISIONS**

### **9.1 General**

The Parties agree to coordinate the operations of their respective Electric Systems so as to minimize any adverse impacts to the other Party's Electric System in accordance with Control Area Arrangements, Good Utility Practice and Appendix E.

## **9.2 Power Delivery and Quality Standard**

Power delivered is commonly designated as three phase alternating current, at nominal 60 Hertz, and at the nominal voltage described in Appendix A for each Point of Interconnection. Normal variations in voltage and frequency shall be permitted pursuant to Good Utility Practice.

## **9.3 Coordination Of Operations**

PG&E and NCPA shall at all times coordinate and communicate their various outages and other switching operations which may have an effect on the operations of the other Party's Electric System and may reasonably be required to protect the integrity of the Control Area during Emergencies.

PG&E and NCPA are also responsible for maintenance and switching operations of their Electric Systems. Both Parties , consistent with their requirements to maintain and operate their Electric Systems in accordance with Good Utility Practice, may from time to time remove various elements of their Electric Systems from operation or initiate other actions which may affect operations or transfer of energy across Points of Interconnection.

The Parties shall endeavor to coordinate their activities in the operation and maintenance of their Electric Systems in order to avoid or minimize any adverse effects of those activities on each other.

#### **9.4 Relationship To Control Area Operations**

NCPA and PG&E currently operate in the ISO Control Area. The Parties shall operate in accordance with Good Utility Practice and in compliance with applicable requirements of federal, state, and local laws, licenses, and permits. NCPA is a party to an MSS Aggregator Agreement with the ISO. Should this MSS Aggregator Agreement terminate and not be replaced with a substantially similar agreement, NCPA and PG&E shall coordinate the operation of their respective Electric Systems in accordance with Appendix E except as otherwise provided in this Agreement. In the event that PG&E or NCPA makes any changes in its relationship with the ISO, the Party making the change shall, if practical, give as much advance notice including 30 days notice if possible to the other Party.

#### **9.5 Separate Control Area**

Nothing in this Agreement shall prevent either Party from joining or forming a new Control Area. In such event, this Agreement shall be revised as appropriate to reflect such change in Control Area operations.

#### **9.6 Reporting Significant Events**

Each Party shall promptly, after reporting to the Control Area Operator, report to the other Party any Emergency or other significant operating event reasonably likely to affect operation of the other Party's Electric System at each



Point(s) of Interconnection. For notice to PG&E, such notice shall be by telephone to PG&E's Transmission Operations Center personnel or such other substation or switching center as may be designated by PG&E. For notice to NCPA, such notice shall be by telephone to NCPA's Control Center, or as otherwise designated by NCPA. Each Party, upon request and on a case-by-case basis for reasonable cause related to operating conditions, shall, in a timely manner, provide to the other Party Electric System operating information, such as loading on lines and equipment and levels of operating voltages and electric power factors. In the event of interruptions, including power quality events, of electric service at any Point of Interconnection, the Party causing the interruption shall report, in a timely manner if known, to the other Party the nature and suspected cause of the event, actions being taken to restore electric service, and the estimated time until restoration of electric service.

#### **9.7 Operation Pursuant To Good Utility Practice**

Good Utility Practice shall be the general standard for performance related to Electric System operation by the Parties under this Agreement.

Each Party shall plan and operate its respective Electric System in accordance with Good Utility Practice and endeavor to minimize electrical disturbances on the Electric

System of the other Party. No Party shall be obligated to operate in a manner contrary to Good Utility Practice.

#### **9.8 Engineering And Operating Committee**

NCPA and PG&E shall establish an Engineering and Operating Committee. This "E&O Committee" shall agree upon and modify, as necessary, operating procedures and engineering planning matters required to implement this Agreement consistent with Good Utility Practice. The E&O Committee shall consist of two representatives designated in writing by each Party. Each Party shall also designate an alternate who may act instead of a representative at the option of that Party. Either Party may at any time change its representatives or alternate on the E&O Committee and shall promptly notify the other Party of any change in designation. Any representative, by written notice to the other Party, may authorize its alternate to act temporarily in its place. Each member of the E&O Committee may invite other members of its organization or others, as its advisors, to attend meetings of the E&O Committee. The E&O Committee shall elect a chairman each year that shall alternate between the Parties.

##### **9.8.1 E&O Committee Operating Procedures**

The E&O Committee shall establish procedures for the coordination and operation of their Electric Systems. Such procedures shall:

9.8.1.1 Allow each Party to meet applicable coordination and operational requirements of the ISO tariff and protocols including any ISO agreements which it has entered into, including but not limited to PG&E's Transmission Control Agreement and any Control Area Arrangements, including MSS Aggregator Agreements or Operating Agreements, entered into by NCPA.

9.8.1.2 Allow each party to meet applicable coordination and operational requirements of the PG&E Transmission Owner Tariff and the PG&E Wholesale Distribution Tariff;

9.8.1.3 Provide that PG&E shall report the procedures adopted by the E&O Committee to the ISO; and

9.8.1.4 Provide for the coordination of maintenance schedules and operation of the Parties' Electric Systems as may be required to maintain the reliability and power quality of the interconnected Electric Systems, reduce losses, maintain voltage levels, and minimize reactive interchanges.

**9.8.2 E&O Committee Expenses**

The expenses of the members of the E&O Committee, their alternates and advisors shall be borne by the Party they represent. Expenses incurred by the E&O Committee in addition to those herein above mentioned shall be shared in a just and reasonable manner agreed to by the Parties. The

sharing of such expenses shall be agreed to prior to the time that such additional expenses are incurred.

### **9.8.3 E&O Committee Meetings**

The E&O Committee shall meet to discuss the availability of additional or modified interconnection service requested by NCPA, or proposed by PG&E. Such matters shall include but not be limited to the following:

- a. The E&O Committee shall examine potential alternatives to provide NCPA's requested interconnection service.
- b. The E&O Committee shall determine the studies that need to be performed and the manner in which the Cost of such studies shall be allocated unless the ISO Tariff, PG&E TO or WDT Tariff provides otherwise.
- c. In the event studies are required as a result of a NCPA request for interconnection service, NCPA may elect to make the studies in coordination with PG&E and the Parties will mutually agree on the parameters for the studies.
- d. For studies conducted by PG&E for which NCPA provides compensation, PG&E and NCPA will agree initially on the scope of such studies, study parameters, and the compensation required from NCPA. PG&E agrees to provide NCPA with written monthly

progress reports, unless agreed otherwise.

Subsequent changes to the study scope will require NCPA's agreement which shall not be unreasonably withheld. The E&O Committee shall meet when such studies are completed and based on these studies, agree upon a plan for providing NCPA's requested interconnection service. The criteria for selecting such a plan shall be the ISO Planning Criteria and Good Utility Practice.

- e. Review the consistency of the Parties' coordination and operation procedures with the requirements of Section 9.8.1 and adopt any revisions necessary to assure such consistency.

#### **9.8.4 E&O Committee Guidelines**

The E&O Committee shall meet upon the call of either Party. From time to time, to meet changing conditions, the E&O Committee shall be responsible for reviewing and recommending operating procedures, standard practices and other matters affecting the interconnected operation of the Parties' respective Electric Systems. The E&O Committee shall meet at least twice per year. Such matters shall include but not be limited to the following:

- a. Examine and make recommendations on future Points Of Interconnection in order to: (i) ensure that the proposed Points of Interconnection will be

consistent with Good Utility Practice,  
(ii) determine necessary additions or modifications to equipment or operating procedures to ensure that PG&E's and NCPA's Electric System reliability and service to its customers will not be adversely affected, and (iii) determine the allocation of Costs associated with the above additions or modifications.

- b. Review and recommend arrangements for metering, communication, scheduling, and dispatching that may be necessary for the interconnected operation of the Parties' respective Electric Systems.
- c. Establish administrative and billing procedures that may be necessary for implementing various provisions of this Agreement.
- d. Establish a mutual obligation communications protocol as described in Section 9.13.
- e. Review reactive power requirement compliance and any other power quality issues at Points of Interconnection.
- f. Review annual load forecasts (electric load planning data) and the results of PG&E's and NCPA's relevant planning studies.

- g. Review reliability and power quality performance of PG&E's and NCPA's Electric Systems at Points of Interconnection.

**9.8.5 E&O Committee Authority**

The E&O Committee shall have no authority to modify any of the provisions of this Agreement. All actions, recommendations and reports shall become effective when signed, or otherwise approved, by all members of the E&O Committee if necessary referred to the Parties' respective managements. Each Party's representatives shall be afforded ample time to review relevant details prior to finalization of any action, recommendation or report and may request up to 30 days to review the material to be acted upon.

**9.8.6 Settlement of Disputes and Arbitration.**

The Parties agree to make best efforts to settle all disputes between the Parties connected with this Agreement as a matter of normal business practice under this Agreement. Any unresolved disputes shall be resolved through the dispute resolution procedure set forth in Section 23.

**9.9 Protective Devices**

Both Parties shall, consistent with ISO requirements and Good Utility Practice, install, modify, set and adjust the protective relaying equipment associated with facilities within its respective Electric System. Such settings adjustments or replacement shall be consistent with settings

adjustments or replacement made by PG&E to PG&E's protective relaying equipment. NCPA shall install, modify, set adjust or replace its protective relaying equipment in the event that such is required by PG&E's modification of PG&E's Electric System consistent with ISO requirements and with Good Utility Practice. Such changes shall be reviewed by the E&O Committee.

**9.10 Requirements for Generators Operated by NCPA that are Connected to PG&E Electric System**

NCPA shall enter into a generator interconnection-type agreement with PG&E substantially consistent with PG&E's Generation Interconnection Agreement and consistent with NCPA's MSS Aggregator Agreement for each new generating facility operated by NCPA, which is connected to PG&E's Electric System at voltages of 60kV or greater.

**9.11 Continuity Of Service**

**9.11.1 Operation Actions To Maintain Continuity**

Each Party shall take actions that are reasonable and consistent with Control Area Arrangements and Good Utility Practice as necessary to maintain continuity of service between the Parties. Such actions may include, but are not limited to, opening or closing circuit breakers or other components of the interconnections.

**9.11.2 Unscheduled Interruptions**

Either Party may temporarily interrupt or reduce any service, or temporarily separate all or any part of



the facilities of its Electric System from the other Party's Electric System to implement ISO operating orders and their respective Control Area Arrangements or Good Utility Practice at any time that: (i) a System Emergency exists; (ii) the action is necessary or desirable to prevent a hazard to life or property; or (iii) the operation of the Party's Electric System is suspended, interrupted or interfered with as a result of an Uncontrollable Force. Reasonable effort shall be made to coordinate any such interruption and such interruption will be immediately communicated to the other Party. In the event of such interruption or reduction in service, the Parties shall restore full service on a basis comparable to the restoration of other public service and safety facilities and consistent with their respective Control Area Arrangements.

#### **9.11.3 Scheduled Interruptions**

All scheduled interruptions of service shall be made as mutually agreed by the Parties and in accordance with Control Area Arrangements and Good Utility Practice. Whenever possible, the Parties shall endeavor to give at least 72 hours advance notice of any such interruption, reduction or separation, and its probable duration.

#### **9.11.4 Interruption By Protective Devices**

PG&E and NCPA utilize automatic protective devices in order to assist in maintaining the integrity and reliability of their respective Electric Systems and to protect their customers from damage, injury or prolonged outages. Service on the PG&E and NCPA Electric Systems is subject to interruption in the event of operation of such devices. In the event of such interruption, service will be restored consistent with Good Utility Practice and Control Area Arrangements. In addition, PG&E and NCPA shall coordinate such restoration and all installations, upgrades, and replacements of protective devices at Points of Interconnection in accordance with Good Utility Practice.

#### **9.11.5 Jeopardy**

If at any time continuity of service within the ISO Control Area is being jeopardized due to failure of facilities, PG&E and/or NCPA shall coordinate their responses to the jeopardy, to implement ISO operating orders in accordance with their respective Control Area Arrangements, and Good Utility Practice. Such coordination may include the reduction of load; provided, except as otherwise set forth in the Parties' Control Area Arrangements, that such reduction shall maintain, as far as may be practicable, the relative

sizes of load served by each Party in the same proportion as existed before such reduction.

Either Party may also temporarily interrupt or reduce deliveries to Points of Interconnection or separate all or a part of the facilities of its Electric System from all or a part of the Electric System of the other Party, or the Electric System which directly or indirectly serves the other Party, if the first Party determines that the following conditions exist or that the described action is necessary: (i) a System Emergency; (ii) in order to install equipment on, make repairs or replacements to, make investigations and inspections of, or perform maintenance or other work on PG&E's Electric System; (iii) to prevent a hazard to life or property; (iv) as necessitated by Good Utility Practice, or (v) where the operation of PG&E's Electric System is suspended, interrupted or interfered with as a result of Uncontrollable Force. The Parties understand and agree that load curtailment under such circumstances is a matter that should be coordinated among PG&E, NCPA and the ISO based upon the ISO tariff and any Control Area Arrangements entered into between PG&E, NCPA and the ISO. Such interruptions or reductions of deliveries shall be minimized and implemented after all other practical remedies have been exhausted.

### **9.12 Operating Records**

Each Party shall maintain operating records in accordance with Good Utility Practice. Each Party shall have reasonable access to such operating records kept by the other Party which reasonably relate to interconnected operation of the Parties' Electric Systems; provided, that if requested to do so by the other Party, a Party requesting such records shall be required to keep such records confidential to the extent permitted by applicable law, including, in the case of NCPA, the Ralph M. Brown Act and the Public Records Act. Such records shall include, but not be limited to, operating logs, scheduled transfers through each Point of Interconnection, line loadings, outage and power quality reports, voltages and reactive power.

### **9.13 Mutual Obligation Communications Protocol**

The Parties shall establish a mutual obligation communications protocol that will cover clear and timely communication between the Parties regarding items such as, but not limited to (a) complying with maintenance schedules that conform to Good Utility Practice, and (b) the reporting of system disturbances. The E&O Committee shall be the venue for establishing such a protocol.

## **10      SIGNIFICANT REGULATORY OR OPERATIONAL CHANGE**

The procedures set forth in this Section 10 shall apply in the event of a Significant Regulatory Change or a Significant Operational Change as described below.

### **10.1      Significant Regulatory Change**

A "Significant Regulatory Change," As this term is used in this Section 10, shall be deemed to occur if FERC, the CPUC, any other agency or court having jurisdiction, the California Legislature, or the United States Congress issues an order or decision or adopts or modifies a tariff or filed contract, or enacts a law that significantly interferes with the ability of either Party to perform any of its obligations under this Agreement.

### **10.2      Significant Operational Change**

A "Significant Operational Change," as this term is used in this Section 10, shall consist of any of the following: (i) either Party's making a new interconnection of its Electric System with the Electric System of a Third Party, including any generation, which would have the potential for significantly affecting the operation of the other Party's Electric System; (ii) installation or operation by either Party or a Third Party of a generation facility within a Party's Electric System where power or energy from such generation is intended to or may possibly flow through a Point of Interconnection and onto either Party's Electric System; or

(iii) any other operational change proposed by a Party that could reasonably be expected to significantly affect the other Party's Electric System; or (iv) an action taken by the Control Area Operator which may cause a significant change in the way a Party operates or must operate its Electric System or the Points of Interconnection between the Parties.

#### **10.3     Change in Functions or Scope**

The Parties recognize that there may be a change in the functions performed by the ISO or in the scope of the facilities under the operational control of the ISO, or the replacement of the ISO with a Regional Transmission Organization that may perform different functions or have a different scope than the ISO as of the Effective Date. Such a change shall not be deemed to be a Significant Regulatory Change unless the conditions described in Section 10.1 above are satisfied. Any transfer from PG&E to the ISO of any functions contemplated in this Agreement can be a Significant Regulatory Change if the conditions described in Section 10.1 above are satisfied.

#### **10.4     Notification**

At any time during the term of this Agreement, if either Party anticipates the occurrence of a Significant Regulatory Change or Significant Operational Change, and if such change may reasonably be expected to materially affect either or both Parties' obligations or operations under this

Agreement, such Party shall provide written notice to the other Party as soon as practicable. The notice shall contain a description of the change, including expected time schedules and of the effect of the significant change to that Party's Electric System. If the Party giving notice believes that it will be necessary to amend this Agreement to address the anticipated change, then the notice to the other Party may include a proposal that the Parties meet in order to negotiate an appropriate amendment to this Agreement. The Parties shall promptly enter into good faith negotiations in an attempt to achieve a mutually agreeable modification to this Agreement to address any such significant change.

#### **10.5     Amendment of Agreement**

If the Parties agree that an amendment to this Agreement is necessary to address a significant change, as discussed in this Section 10, the Parties will proceed to negotiate such amendment. If the Parties have not reached agreement within 60 calendar days of the date of the first meeting, any unresolved issues may be submitted for resolution through the dispute resolution procedures set forth in Section 23; provided that both Parties agree to such procedures. After the 60 day period stated above, either Party may, but is not required to, unilaterally initiate an appropriate proceeding respecting this Agreement with FERC pursuant to Sections 205 or 206 of the FPA, which proceeding

could include a request for termination of this Agreement, and the other Party may exercise its rights under the FPA to protest or oppose such filing. In the event of filing for termination, PG&E shall make an appropriate regulatory filing of a replacement agreement such that the replacement agreement is effective contemporaneously with the termination date of this Agreement.

#### **10.6 Studies of Significant Operational Change**

If a Party receiving notice from the other Party of a Significant Operational Change believes that the proposed change may reasonably be expected to materially affect the operation of its Electric System, it may request a study of any such Significant Operational Change to determine the potential for any adverse impacts and any potential avoidance or mitigation measures thereto. The Parties shall cooperate in determining how the study should be conducted and providing information necessary to conduct such a study.

If it is determined, based on the results of the study, that, in addition, a Facility Study or System Impact Study is required, such study shall be performed within the time and in the manner specified in Section 7 of the PG&E TO Tariff and as agreed by the Parties. All study Costs associated with a proposal shall be the responsibility of the Party whose proposal or actions will cause the Significant Operational Change, or will be shared equally by the Parties



if the ISO is the entity which causes or will cause the change; provided, that such Costs may be paid by a responsible Third Party. Any disputes over the necessity of particular studies or the Cost of such studies shall be resolved through the dispute resolution procedures set forth in Section 23 unless the dispute resolution procedures of the PG&E TO Tariff or the PG&E WD Tariff apply. Upon completion of necessary studies, the Parties will each review the study results and discuss any recommendations for avoidance and/or mitigation of adverse impacts.

#### **10.7     Mitigation And Costs**

Unless otherwise agreed by the Parties, the Party whose proposal or action causes the Significant Operational Change ("Modifying Party") shall be responsible for compensating the other Party ("Affected Party") for the reasonable Cost, if any, of mitigating any adverse impact on the Affected Party's Electric System caused by the change; provided, that such Costs may be paid by a responsible Third Party. Any reasonable Cost incurred by the Affected Party in its cooperation with the Modifying Party shall be reimbursed by the Modifying Party. All avoidance or mitigation measures shall be completed before the Significant Operational Change is made. Any dispute regarding the need for, the nature of, or the Cost of mitigating adverse impacts or compensating the Affected Party for those adverse impacts that cannot be

mitigated shall be resolved through the dispute resolution procedures set forth in Section 23.

In the event changes in transmission delivery voltages, relocation of facilities serving Points of Interconnections or other changes in transmission facilities are necessary on PG&E's side of any Point of Interconnection with NCPA because of changes to PG&E's transmission as a result of Good Utility Practice or ISO planning requirements, these changes shall be made by PG&E at its expense. For similar changes made to NCPA's side of Points of Interconnection, such changes shall be at NCPA's expense unless the change is made for PG&E's benefit and at PG&E's sole discretion unless otherwise agreed. Such change made at PG&E's sole discretion shall be submitted to the E&O Committee for its determination of the respective long term benefits of such changes, if any. The E&O Committee shall allocate the Cost of such changes based on the projected net long-term benefits to each Party. Changes required on PG&E's side due to any changes made for NCPA's benefit or NCPA's sole discretion shall be made at NCPA's expense, unless submitted to the E&O Committtee for its determination of an appropriate allocation between the Parties based on projected net long term benefits to each party.

**10.8     Failure To Notify Of Significant Operational**  
**Changes**

Each Party has a duty to provide notice to the other Party of Significant Operational Changes planned for its Electric System that could reasonably be expected to have an adverse impact on the Electric System of the other. If a Party implements a Significant Operational Change without providing such notice, the affected Party shall have the right to open any affected Point(s) of Interconnection if, in its judgment, it is necessary to protect the integrity of its Electric System, and the right to file with FERC under Sections 205 or 206 of the FPA seeking appropriate relief, including, but not limited to, amendment or termination of this Agreement.

**11     INSTALLATION AND ACCESS**

Where it is necessary for either Party to install any of its facilities on the other Party's premises in order to accomplish the interconnection or otherwise to perform the duties contemplated by this Agreement, the Parties hereby grant to each other, subject to any legal and regulatory requirements for any specific installation, for the term of this Agreement: i) the right to make such installation along the mutually agreed route (subject to each Party's right to protect its operations or that of its customers in its Service

Area) of sufficient width to provide full legal clearance from all structures on such property; and ii) access to each Party's premises at all reasonable hours for any purposes reasonably connected with this Agreement. Neither shall be allowed or obligated to install such facilities unless and until all necessary licenses, permits, certificates, or other governmental authorizations or approvals that may be necessary are obtained and any necessary easements for the installation of facilities are granted. Electric facilities belonging to one Party that are installed on the other Party's premises will be relocated only with the agreement of the owner of such facilities, which shall not be unreasonably withheld. The requesting Party shall pay the Cost, if any, of any such facility relocation. If such costs are FERC jurisdictional, PG&E shall request and obtain FERC acceptance to assess such costs prior to collection.

## **12      METERING**

### **12.1      Delivery Meters**

All real and reactive power deliveries shall be metered at each Point of Interconnection with meters meeting the requirements of: (i) the ISO Tariff for interconnections at 60 kV and above; and (ii) the PG&E WD Tariff for interconnections below 60 kV. Any conflicts with regard to metering standards that may arise between this Agreement, the

PG&E Wholesale Distribution Tariff, or the ISO Tariff shall be resolved consistent with the applicable tariff. Power deliveries shall be metered at delivery voltages described in Appendix A. At a minimum, the Responsible Meter Party shall meter all power flowing across each interconnection in either direction.

The Parties shall cooperate in the installation and provision of access to the meters, as necessary for each Party to obtain the information needed to perform as contemplated under this Agreement.

**12.2     Requirements For Meters And Meter Maintenance**

The Responsible Meter Party is obligated to install and maintain metering equipment, including where necessary RTUs, in accordance with ISO standards, at each Point of Interconnection that shall measure and record real and reactive power flows and shall be capable of recording flows in both directions. Such "in" and "out" meters shall be designed to prevent reverse registration and measure and continuously record such deliveries.

**12.3     NCPA's Obligation To Provide Meter Data To PG&E**

NCPA, pursuant to its MSS Aggregator Agreement with the ISO, subject to any exemptions granted by the ISO, supplies the ISO with both telemetry and settlement quality meter data. The telemetry data includes generator status, voltage and output. NCPA, as the Responsible Meter Party, will

grant PG&E access to the same metering data in accordance with Schedule 15.2 of the NCPA MSS Aggregator Agreement. Should the MSS Aggregator Agreement terminate for any reason, PG&E will continue to have the same level of access as it did under Schedule 15.2. In addition, NCPA will provide PG&E with necessary schedule data regarding NCPA transactions that affect PG&E's accurate accounting of the Western Logical Meter at Tracy, through procedures to be agreed upon between the Parties.

**12.4     Consequences of Failing to Provide Meter Data in a Timely Fashion**

In the event that NCPA, acting as the Responsible Meter Party, fails to provide to PG&E access to available meter data in accordance with Section 12.3, PG&E shall be entitled to make reasonable assumptions necessary for the operations of its transmission system. The assumptions shall be based on reasonably available information including, but not limited to, records of historical usage, available RTU data and meter readings and general characteristics of NCPA's operation and facilities

**13     BILLING AND PAYMENT**

PG&E shall bill NCPA for the Costs of an Upgrade Facility and/or the monthly ownership Cost of an Upgrade Facility pursuant to Appendix D. PG&E shall promptly pay NCPA for

amounts owed pursuant to this Agreement. Sections D.2 through D.9 of Appendix D shall hereto apply to PG&E's payment obligations to NCPA, substituting "NCPA" for "PG&E" and "PG&E" for "NCPA", respectively.

#### **14      APPENDICES INCLUDED**

The following Appendices to this Agreement, as they may be revised from time to time by written agreement of the Parties or by order of FERC, are attached hereto and are incorporated by reference as if fully set forth herein:

Appendix A – Point(s) of Interconnection

Appendix B – Dispute Resolution and Arbitration

Appendix C – Upgrade Facilities

Appendix D – Billing and Payments

Appendix E – Operational Coordination

#### **15      ACCOUNTING**

##### **15.1      Accounting Procedures**

PG&E and NCPA each shall record relevant Cost(s) and maintain its accounting records in accordance with generally accepted accounting practices and FERC Uniform System of Accounts.

##### **15.2      Audit Rights**

For good cause and upon reasonable notice, each Party shall have the right to audit, at its own expense, the

relevant records of the other Party for the limited purpose of determining whether the other Party is meeting its obligations under this Agreement. Such audits shall be limited to only those records reasonably required to determine compliance with this Agreement, and each Party agrees to disclose the information obtained in such audit only to those persons, whether employed by such Party or otherwise, that are directly involved in the administration of this Agreement. Each Party agrees that under no circumstances will it use any information obtained in such an audit for any commercial purpose or for any purpose other than assuring enforcement of this Agreement. The right to audit shall be limited to data for two prior years from the date of the final billing for a matter or from the date of the questioned event, as applicable.

**16      ADVERSE DETERMINATION OR EXPANSION OF OBLIGATIONS**

**16.1      Adverse Determination**

        If, after the Effective Date of this Agreement, FERC or any other regulatory body, agency or court of competent jurisdiction determines that all or any part of this Agreement, its operation or effect is unjust, unreasonable, unlawful, imprudent or otherwise not in the public interest, each Party shall be relieved of any obligations hereunder to the extent necessary to comply with or eliminate such adverse determination. The Parties shall promptly enter into good



faith negotiations in an attempt to achieve a mutually agreeable modification to this Agreement to address any such adverse determination.

#### **16.2 Expansion Of Obligations**

If, after the Effective Date of this Agreement, FERC or any other regulatory body, agency or court of competent jurisdiction orders or determines that this Agreement should be interpreted, modified, or significantly extended in such a manner that PG&E or NCPA may be required to extend its obligations under this Agreement to a Third Party, or to incur significant new or different obligations to the other Party or to Third Parties not contemplated by this Agreement in a manner not anticipated by other agreements, then the Parties shall be relieved of their obligations to the extent lawful and necessary to eliminate the effect of that order or determination, and the Parties shall attempt to renegotiate in good faith the terms and conditions of the Agreement to restore the original balance of benefits and burdens contemplated by the Parties at the time this Agreement was made.

#### **16.3 Renegotiations**

If, within three months after an order or decision as described in Sections 16.1 and 16.2, the Parties either: (i) do not agree that a renegotiation is feasible or necessary; or (ii) the Parties cannot agree to amend or

supersede this Agreement, then: (a) either Party may initiate dispute resolution in accordance with Section 23; (b) PG&E may unilaterally file an amendment to this Agreement or a replacement agreement; or (c) NCPA may take any action before the FERC or elsewhere which it deems appropriate. The effect of such termination, and the rights of the Parties thereunder, shall be as provided in Sections 37 and 38. As used in this Section, the term "Agreement" includes both this Agreement and any tariff, rate or rate schedule that in whole or in part results from this Agreement.

## **17 ASSIGNMENT**

### **17.1 Consent Required**

No transfer or assignment of the rights, benefits or duties of either Party under this Agreement shall be effective without the prior written consent of the other Party except as provided herein, which consent shall not be withheld unreasonably; provided, that this Section 17 shall not apply to interests that arise by reason of any deed of trust, mortgage, indenture or security agreement heretofore granted or executed by any Party. No partial assignment of the rights, benefits or duties of either Party shall be permitted under this Agreement unless otherwise agreed to by the other Party, however such consent shall not be required for an assignment to a successor in interest in the ownership of all

or a significant part of PG&E's transmission system by reason of a reorganization pursuant to a plan of reorganization approved by the Bankruptcy Court or any other court having jurisdiction over PG&E's bankruptcy proceedings so long as the successor agrees to be, and is bound, by the obligations under this agreement.

#### **17.2 Assignee's Continuing Obligation**

Any successor to or transferee or assignee of the rights or obligations of a Party, whether by voluntary transfer, judicial sale, foreclosure sale or otherwise, shall be subject to all terms and conditions of this Agreement to the same extent as though such successor, transferee, or assignee were an original Party.

#### **18. CAPTIONS**

All indices, titles, subject headings, section titles and similar items are provided for the purpose of reference and convenience and are not intended to affect the meaning of the contents or scope of the Agreement.

#### **19. CONSTRUCTION OF THE AGREEMENT**

Ambiguities or uncertainties in the wording of the Agreement shall not be construed for or against either Party.

## **20. CONTROL AND OWNERSHIP OF FACILITIES**

The Electric System of a Party shall at all times be and remain in the exclusive ownership, possession and control of the Party, or licensed or leased to that Party as provided in the License, and nothing in this Agreement shall be construed to give the other Party any right of ownership, possession or control of all or any portion of that Electric System. All facilities owned and installed by one Party hereunder shall, unless otherwise agreed by the Parties, at all times be and remain the property of that Party.

## **21. COOPERATION AND RIGHT OF ACCESS AND INSPECTION**

Each Party shall give to the other all necessary permission to enable it to perform its obligations under the Agreement. Each Party shall give the other Party the right to have its agents, employees and representatives, when accompanied by the agents, employees and representatives of the other Party, enter its premises at reasonable times and in accordance with reasonable rules and regulations for the purpose of inspecting the property and equipment of the other Party in a manner which is reasonable for assuring the performance of the Parties under the Agreement.

## **22 DEFAULT**

### **22.1 Termination For Default**

If either Party breaches its material obligations under this Agreement, such breach shall constitute an event of default. If any Party defaults under this Agreement, the other Party may terminate this Agreement; provided that prior to such termination the other Party must provide the defaulting Party with written notice stating: 1) the Party's intent to terminate; 2) the date of such intended termination; 3) the specific grounds for termination; 4) specific actions which the defaulting Party must take to cure the default, if any; and 5) a reasonable period of time, which shall not be less than 60 calendar days, within which the defaulting Party may take action to cure the default and avoid termination, provided there is any action which can be taken to cure the default. Termination shall not become effective without approval by FERC. Application of dispute resolution pursuant to Section 23 with regard to separate disputes shall not be deemed to limit the right to terminate this Agreement under this Section 22.1.

### **22.2 Other Remedies For Default**

The remedy under Section 22.1 is not exclusive, and subject to Section 23 either Party also shall be entitled to pursue any other legal, equitable or regulatory rights and

remedies it may have in response to a default by the other Party.

## **23 DISPUTE RESOLUTION**

The Parties shall make best efforts to resolve all disputes arising under this Agreement expeditiously and by good faith negotiation. Where this Agreement specifically calls for resolution of disputes pursuant to Section 23, the Parties shall pursue dispute resolution according to the provisions of Appendix B.

## **24 Governing Law**

This Agreement shall be interpreted, governed by and construed under the laws of the State of California, as if executed and to be performed within the State of California.

## **25 INDEMNITY**

### **25.1 Definitions**

As used in this Section 25, with initial letters capitalized, whether in the singular or the plural, the following terms shall have the following meanings:

#### **25.1.1 Claimant**

(i) Accidents sustained by a Third Party ("Claimant"), which is an ultimate use customer of a Party;

(ii) arises out of delivery of, or curtailment of, or interruption to electric service, including but not limited to abnormalities in frequency or voltage; and

(iii) results from either or both of the following:

a. engineering, design, construction, repair, supervision, inspection, testing, protection, operation, maintenance, replacement, reconstruction, use, or ownership of either Party's Electric System; or

b. the performance or non-performance of either Party's obligations under the Agreement.

## **25.2 Indemnity Duty**

If a Claimant makes a claim or brings an action against a Party seeking recovery for loss, damage, costs or expenses resulting from or arising out of an Accident the following shall apply:

**25.2.1** That Party ("Indemnatee") shall defend any such claim or action brought against it, except as otherwise provided in this Section 25.2.

**25.2.2** A Party ("Indemnitor") shall hold harmless, defend and indemnify, to the fullest extent permitted by law, the other Party, its directors or members of its governing board, officers and employees ("Indemnitees"), upon request by the Indemnatee, for claims or actions brought against the Indemnatee allegedly resulting from Accidents

caused by acts, errors or omissions of the Indemnitor.

**25.2.3** No Party shall be obligated to defend, hold harmless or indemnify the other Party, its directors or members of its governing board, officers and employees for Accidents resulting from the latter's gross negligence or willful misconduct.

**25.2.4** In the event a dispute under this Section 25 is litigated, each Party specifically agrees to pay its own incurred costs including attorney's fees, expert and consultant fees, and other costs of litigation.

## **26     JUDGMENTS AND DETERMINATIONS**

When the terms of this Agreement provide that an action may or must be taken, or that the existence of a condition may be established based on a judgment or determination of a Party, such judgment shall be exercised or such determination shall be made reasonably and in good faith, and where applicable in accordance with Good Utility Practice, and shall not be arbitrary or capricious.



## **27     LIABILITY**

### **27.1     To Third Parties**

Nothing in this Agreement shall be construed to create any duty to, any standard of care with reference to, or any liability to, any Third Party.

### **27.2     Between The Parties**

Except for its willful action, gross negligence, or with respect to breach of this Agreement, or with respect to the indemnity duty under Section 25.2, no Party, nor its directors or members of its governing board, officers, employees or agents shall be liable to another Party for any loss, damage, claim, cost, charge or expense arising from or related to this Agreement. In the event of breach of this Agreement, neither Party, nor its directors or members of its governing board, officers, employees or agents shall be liable to the other Party for any consequential, special or indirect damages.

### **27.3     Protection Of A Party's Own Facilities**

Each Party shall be responsible for protecting its facilities from possible damage by reason of electrical disturbances or faults caused by the operation, faulty operation, or non-operation of another Party's facilities, and such other Party shall not be liable for any such damage so caused; provided, this limitation on liability shall not extend to failure to observe the requirements of Section 9.

#### **27.4     Liability For Interruptions**

Neither Party shall be liable to the other, and each Party hereby releases the other and its directors, members of its governing board, officers, employees and agents from and indemnifies them, to the fullest extent permitted by law, for any claim, demand, liability, loss or damage, whether direct, indirect or consequential, incurred by either Party, which results from the interruption or curtailment in accordance with i) this Agreement, ii) Good Utility Practice, or (iii) as directed by the ISO, of power flows through a Point of Interconnection under this Agreement.

#### **28     NO DEDICATION OF FACILITIES**

Any undertaking by either Party under any provision of this Agreement is rendered strictly as an accommodation and shall not constitute the dedication by the first Party of any part or all of its Electric System to the other, the public, or any Third Party. Any such undertaking by any Party under a provision of, or resulting from, this Agreement shall cease upon the termination of that Party's obligations under this Agreement.

#### **29     NO OBLIGATION TO OFFER SAME SERVICE TO OTHERS**

By entering into this Agreement to interconnect with NCPA or any Third Party at NCPA's request, and filing it with FERC,

PG&E does not commit itself to furnish any like or similar undertaking to any other person or entity.

**30      NO PRECEDENT**

This Agreement establishes no precedent with regard to any other entity or agreement. Nothing contained in this Agreement shall establish any rights to or precedent for other arrangements as may exist, now or in future, between PG&E and NCPA for the provision of any interconnection arrangements or any form of electric service.

**31      NO TRANSMISSION, DISTRIBUTION, POWER, ENERGY SALES OR  
ANCILLARY SERVICES PROVIDED**

Neither Party undertakes under this Agreement to provide or make available any transmission service, distribution service, power energy sales or services or Ancillary Services for the other Party or any Third Party.

**32      NOTICES**

**32.1      Written Notices**

Any notice, request, declaration, demand, information, report, or item otherwise required, authorized or provided for in this Agreement shall be given in writing, except as otherwise provided in this Agreement, and shall be deemed properly given if delivered personally or by facsimile

transmission (fax), or sent by first class United States Mail or overnight or express mail service, postage or fees prepaid, to each of the persons specified below:

(1) To NCPA:

General Manager  
Northern California Power Agency  
180 Cirby Way  
Roseville, CA 95678

And

Assistant General Manager, Power Contracts  
Northern California Power Agency  
180 Cirby Way  
Roseville, CA 95678

(2) To PG&E:

Senior Vice President, Utility Operations  
Pacific Gas and Electric Company  
77 Beale Street, Room 3237, B32  
P.O. Box 770000  
San Francisco, CA 94177

With a copy to:

Director, Interconnection Services Department  
Pacific Gas and Electric Company  
77 Beale Street, Room 1355, B13J  
P.O. Box 770000  
San Francisco, CA 94177

### **32.2 Changes Of Notice Recipient**

Either Party may change its designation of the person who is to receive notices on its behalf by giving the other Party notice thereof in the manner provided in this Section 32. No more than two persons shall be designated by a Party to receive notices.

### **32.3     Routine Notices**

Any notice of a routine character in connection with service under this Agreement or in connection with the operation of facilities shall be given in such a manner as the Parties may determine is appropriate from time to time, unless otherwise provided in this Agreement.

### **32.4     Reliance On Notice**

Each Party shall be entitled under this Agreement to rely on the other Party's notice when given (or not given, when a Party fails to provide notice within the time prescribed) as having all necessary approvals of that other Party's management, Board of Directors or other governing body, and any notice (or failure to provide timely notice) hereunder shall be binding on the noticing Party and shall obligate that Party to make such payments or to perform such duties as are necessarily associated with the notice or, if a Party fails to provide timely notice, that failure to give notice.

## **33     RESERVATION OF RIGHTS**

Nothing contained herein shall be construed as affecting in any way the Parties rights under Sections 205 and 206 of the FPA or the regulations promulgated there under. The term "rates" as used herein shall mean a statement of rates and charges for or in connection with the services provided for in

this Agreement, and all classifications, practices, rules or regulations which in any manner affect or relate to such, rates and charges. PG&E may unilaterally made application to FERC for a change in rates, including rate methodology and the terms and conditions of service, under Section 205 of the FPA and pursuant to FERC's rules and regulations promulgated thereunder. Either party may seek changes to the terms of this Agreement pursuant to Section 206 of the FPA. Nothing contained herein shall be construed as affecting in any way the right of NCPA to oppose such a change under Section 205 or FERC's rules and regulations or to exercise its rights under Section 206 of the FPA or FERC's rules and regulations.

#### **34      RESPONSIBILITY FOR PAYMENTS**

Both Parties shall be fully responsible and liable to each other for payments to be made under this Agreement. The Parties shall perform unconditionally and fully each and every obligation which each has under this Agreement; provided, that this Agreement shall not restrict any right either Party may otherwise have to pledge any of its revenues, funds, assets, rights, property or interests therein. The other Party's status as a creditor shall not be subordinate to the interest of any creditor, subject to any pledge or debt obligation, provision of law or existing obligations of a Party.

### **35      RULES AND REGULATIONS**

PG&E and NCPA, acting through the E&O Committee, may each propose, from time to time, changes to such procedures, rules, or regulations as they shall determine are necessary in order to establish the methods of operation to be followed in the performance of this Agreement or requirements of the Control Area Operator; provided, that any such procedure, rule, or regulation shall not be inconsistent with the provisions of this Agreement. If a Party objects to a procedure, rule, or regulation proposed by the other Party, it will notify the other Party and the Parties will endeavor to modify the procedure, rule, or regulation in order to resolve the objection. No such procedure, rule or regulation shall be adopted absent the mutual written consent of the Parties.

### **36      SEVERABILITY**

If any term, covenant or condition of this Agreement or its application is held to be invalid as to any person, entity or circumstance, by FERC or any other regulatory body, or agency or court of competent jurisdiction, then such term, covenant or condition shall cease to have force and effect to the extent of that holding. In that event, however, all other terms, covenants and conditions of this Agreement and their application shall not be affected thereby, but shall remain in full force and effect unless and to the extent that a

regulatory agency or court of competent jurisdiction finds that a provision is not separable from the invalid provision(s) of this Agreement.

**37      CONTINUING RIGHTS OF NCPA UPON TERMINATION**

Upon termination of the Agreement, NCPA shall continue to have such rights, if any, to be connected to PG&E's Electric System that are provided by law, regulation or other contract or agreement; provided, that the existence of this Agreement, after its termination, shall not be used by either Party to establish or defeat the existence of any rights provided by law, regulation or other contract or agreement. Termination of this Agreement, if accepted or approved by FERC, also shall terminate any other tariff or rate schedule which in whole or in part results from this Agreement, to the extent not inconsistent with a Party's aforementioned rights at law. After termination of this Agreement and any required FERC acceptance or approval of such termination, all obligations and rights provided under this Agreement or such tariff or rate schedule shall cease, and neither Party shall claim or assert any continuing right other than as may be provided by law, regulation or other contract or agreement. Such termination shall not affect rights and obligations of a continuing nature or for payment of money for goods or services provided prior to termination. This Section shall



not be construed as a bar to the assertion by NCPA of any rights it may have to service following termination of this Agreement, independent and exclusive of the Agreement.

**38      RIGHTS OF PG&E UPON TERMINATION**

Should FERC deny, condition, suspend or defer PG&E's notice of termination, PG&E shall under no circumstances be required to maintain any interconnections or to provide any services, based in whole or in part on the existence of this Agreement, beyond the minimum time necessary for compliance with FERC's denial, condition, suspension or deferral.

**39      UNCONTROLLABLE FORCES**

A Party shall not be considered to be in default in the performance of any obligation under the Agreement (other than an obligation to make payments for bills previously rendered pursuant to the Agreement) when a failure of performance is the result of Uncontrollable Forces.

**40      WAIVER OF RIGHTS**

Any waiver at any time by any Party of its rights with respect to a default under the Agreement, or with respect to any other matter arising in connection with the Agreement, shall not constitute or be deemed a waiver with respect to any subsequent default or other matter arising in connection with

the Agreement. Any delay, short of the statutory period of limitations, in asserting or enforcing any right shall not constitute or be deemed a waiver.

**41      ENTIRE AGREEMENT; AMENDMENTS**

This Agreement is intended to be the complete and exclusive statement of the terms of the Parties' agreement which supersedes all prior and contemporaneous offers, promises, representations, negotiations, discussions or communications that may have been made in connection with the subject matter of this Agreement. No representation, covenant, or other matter, oral or written, which is not expressly set forth, incorporated, or referenced in this Agreement (except for applicable laws and regulations) shall be a part of, modify, or affect this Agreement. This Agreement may be modified by written agreement of the Parties.

**42      NO THIRD PARTY RIGHTS OR OBLIGATION**

No right or obligation contained in this Agreement shall be applied or used for the benefit of any person or entity not a Party.

**43      WARRANTY OF AUTHORITY**

Each Party warrants and represents that this Agreement has been duly authorized, executed and delivered by such Party

and constitutes the legal, valid and binding obligation of such Party, enforceable against such Party in accordance with its terms, except as enforcement may be limited by bankruptcy, insolvency, reorganization, or similar laws effecting the enforcement of creditor's rights and subject to equitable principles.

#### **44      EXECUTION**

Executed this 12th day of July, 2002 but effective as set forth above.

**NORTHERN CALIFORNIA POWER AGENCY**

**NCPA**

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

As authorized on behalf of the NCPA Members whose  
Individual signatures may be added later.

**PACIFIC GAS AND ELECTRIC COMPANY**

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

**CITY OF ALAMEDA**

(attest)

By \_\_\_\_\_  
Authorized Representative

**CITY OF BIGGS**

(attest)

By \_\_\_\_\_  
Authorized Representative

**CITY OF GRIDLEY**

(attest)

By \_\_\_\_\_  
Authorized Representative

**CITY OF HEALDSBURG**

(attest)

By \_\_\_\_\_  
Authorized Representative

**CITY OF LODI**

(attest)

By \_\_\_\_\_  
Authorized Representative

**Approved as to form** *Russell A. Tapp*  
**CITY OF LOMPOC** **City Attorney**

(attest)

By \_\_\_\_\_  
Authorized Representative

**CITY OF PALO ALTO**

(attest)

By \_\_\_\_\_  
Authorized Representative

**CITY OF UKIAH**

(attest)

By \_\_\_\_\_  
Authorized Representative

**PLUMAS-SIERRA RURAL  
ELECTRIC COOPERATIVE**

(attest)

By \_\_\_\_\_  
Authorized Representative

## Appendix A

### POINT(S) OF INTERCONNECTION

## Appendix A

### POINTS OF INTERCONNECTION

(a)	(b)	(c)
NCPA Member Customer	Delivery Point	Voltage (kV)
Alameda	Substation C and/or Substation J	115
Biggs	Biggs Sub	60
Gridley	Gridley Sub	60
Healdsburg	Healdsburg Sub	60
Lodi	Industrial Sub/White Slough	60/12
Lompoc	Lompoc Sub	115
Palo Alto	Palo Alto Sub	115
Plumas-Sierra	Quincy Sub	60
Ukiah	Ukiah Sub	115

(a)	(b)
NCPA Resources	Point of Receipt
Geo Plant 1 Geo Plant 2	Lakeville
Collierville	Bellota
Alameda CTs	Substation C and/or Substation J
Roseville CTs	Western
Lodi CT	Industrial
Graegle Hydro Project	Quincy Sub
STIG	NCPA STIG Substation

## Appendix B

### DISPUTE RESOLUTION AND ARBITRATION



## **Appendix B**

### **DISPUTE RESOLUTION AND ARBITRATION**

#### **B.1 NEGOTIATION AND MEDIATION**

As provided in Section 23, the Parties agree to seek settlement of all disputes arising under this Agreement by good faith negotiation before resorting to other methods of dispute resolution. In the event that negotiations have failed, but before initiating arbitration proceedings under this Appendix B, the Parties may by mutual assent decide to seek resolution of a dispute through mediation. If this occurs, the Parties shall meet and confer to establish an appropriate timetable for mediation, to pick a mediator, and to decide on any other terms and conditions that will govern the mediation.

#### **B.2 TECHNICAL ARBITRATION**

The Parties agree that it is in the best interest of both Parties to seek expedited resolution of arbitrable disputes that are technical in nature. Technical disputes may include, without limitation, disputes centered on engineering issues involving technical planning studies, the need for and Cost of Upgrade Facilities, and the Interconnection Capacity of a Point of Interconnection. Such technical issues may be resolved through expert application of established technical

knowledge and by reference to Good Utility Practice and industry standards.

The Party initiating arbitration pursuant to Section B.3 below shall indicate in its notice to the other Party whether it regards the dispute to be technical in nature. If both Parties agree that a dispute is technical in nature, then the Parties shall meet and confer to develop an appropriate timetable and process for expedited resolution of the dispute by a neutral expert, or "technical arbitrator". If the Parties cannot agree that a dispute is technical in nature, or if they cannot agree on a neutral arbitrator, then the Parties may submit the dispute to arbitration under the procedures set forth in Appendix B, Section 3 below.

### **B.3 ARBITRATION**

#### **B.3.1 Notices And Selection Of Arbitrators**

In the event that a dispute is subject to arbitration under Section 23, the aggrieved Party shall initiate arbitration by sending written notice to the other Party. Such notice shall identify the name and address of an impartial person to act as an arbitrator. If either party takes the position that the dispute is not arbitrable, either party may take the dispute to FERC for resolution. Within ten (10) business days after receipt of such notice, the other Party shall, if it agrees that the decision is properly arbitrable, give a similar written notice stating the name and

address of the second impartial person to act as an arbitrator. Each Party shall then submit to the two named arbitrators a list of the names and addresses of at least three persons for use by the two named arbitrators in the selection of the third arbitrator. If the same name or names appear on both lists, the two named arbitrators shall appoint one of the persons named on both lists as the third arbitrator. If no name appears on both lists, the two named arbitrators shall select a third arbitrator from either list or independently of either list. Each arbitrator selected under these procedures shall be a person experienced in the construction, design, operation or regulation of electric power transmission facilities, as applicable to the issue(s) in dispute.

#### **B.4 PROCEDURES**

Within fifteen (15) business days after the appointment of the third arbitrator, or on such other date to which the parties may agree, the arbitrators shall meet to determine the procedures that are to be followed in conducting the arbitration, including, without limitation, such procedures as may be necessary for the taking of discovery, giving testimony and submission of written arguments and briefs to the arbitrators. Unless otherwise mutually agreed by the parties, the arbitrators shall determine such procedures based upon the purpose of the Parties in conducting an arbitration under

Section 23 of the Agreement, specifically, the purpose of utilizing the least burdensome, least expensive and most expeditious dispute resolution procedures consistent with providing each Party with a fair and reasonable opportunity to be heard. If the arbitrators are unable unanimously to agree to the procedures to be used in the arbitration, the arbitration shall be governed by the Commercial Arbitration Rules of the American Arbitration Association.

**B.5 HEARING AND DECISION**

After giving the Parties due notice of hearing and a reasonable opportunity to be heard, the arbitrators shall hear the dispute(s) submitted for arbitration and shall render their decision with ninety (90) calendar days after appointment of the third arbitrator or such other date selected upon the mutual agreement of the Parties. The arbitrators' decision shall be made in writing and signed by any two of the three arbitrators. The decision shall be final and binding upon the parties subject to rights to appeal the decision to FERC. Judgment may be entered on the decision in any court of competent jurisdiction upon the application of either Party.

**B.6 EXPENSES**

Each Party shall bear its own costs and the costs and expenses of the arbitrators shall be borne equally by the parties.

## **Appendix C**

### **UPGRADE FACILITIES**

## **Appendix C**

### **C.1 UPGRADE FACILITIES**

At least 60 calendar days prior to the date on which NCPA is to commence payment of any Cost as a result of construction of an Upgrade Facility, as agreed upon in accordance with section 7.3 of this Agreement, PG&E shall determine and provide to NCPA: (i) an estimate of all Cost, broken down by major activities, which PG&E expects to incur; and (ii) a schedule indicating the approximate dates when PG&E expects to pay such Cost for each major activity included in the estimate. PG&E may revise the payment schedule from time to time as appropriate.

**C.1.2** If needed, the Parties will enter into a Special Facilities Agreement which shall include an estimate and schedule of Cost and payments as provided by Appendix C, Section 1, and NCPA shall advance such Cost to PG&E pursuant to such schedule or any revisions to it.

**C.1.3** NCPA's total payments to PG&E for work performed under this Appendix C, Section 1.3 shall be for the actual Cost incurred by PG&E. PG&E shall document to NCPA the actual Cost incurred upon completion, and shall refund any amount overpaid by, or request any additional payment from, NCPA, with interest computed as provided in Appendix D, Section D.6 of this Agreement.

**C.1.4** Should NCPA seek a ruling from the Internal Revenue Service that NCPA's payments under this subsection should be treated as non-taxable contributions-in-aid-of-construction, PG&E shall cooperate reasonably with NCPA in supporting NCPA's filing with the Internal Revenue Service.

**C.1.5** NCPA shall have the right pursuant to Section 15 to review the supporting documents upon which PG&E bases its estimate of the Cost of work to be advanced by NCPA pursuant to the Special Facility Agreement, as well as documents that show the actual Cost incurred by PG&E.

## **C.2 ASSOCIATED FERC FILINGS**

If required by FERC or requested by NCPA, PG&E shall file, or at its election may file, with FERC a Special Facility Agreement to document and seek approval of any Cost charged by PG&E to NCPA associated with any facility modifications, changes, reinforcements or advances contemplated by this Agreement. NCPA shall support this filing by an appropriate submittal to FERC stating its agreement with the charges; provided, that if the Parties are unable to agree on the need for an Upgrade Facility or the Cost of an Upgrade Facility or the amount thereof NCPA shall be responsible for, NCPA may oppose such PG&E filing.



## **Appendix D**

### **BILLING AND PAYMENT**

### **C.3 LIMITATIONS ON RESPONSIBILITY FOR UPGRADE COSTS**

#### **C.3.1 No Double Collection**

PG&E may not charge NCPA for any Costs associated with Upgrade Facilities that have already been or will be collected through rates paid by PG&E retail or wholesale customers or from a Third Party; provided, that this Section shall not preclude PG&E charging NCPA where refunds are made to those who originally paid for such Costs.

## **Appendix D**

### **BILLING AND PAYMENT**

NCPA shall pay PG&E Costs owed pursuant to this Agreement  
at:

Pacific Gas and Electric Company  
Payment Processing Center  
Research Unit / B5A  
P.O. Box 770000  
San Francisco, CA 94177

PG&E may change the place where payment is made by giving NCPA  
notice thereof as provided in Section 32.

**D.1** PG&E shall prepare and submit bills to NCPA on or  
after the first business day of each calendar month. The  
Payment of any bill shall be due and must be received by PG&E  
not later than the 30th calendar day following the day on  
which NCPA receives the bill or, if that 30th day is a  
Saturday, Sunday or legal holiday, the next business day.  
Such date shall be referred to as the Payment Due Date. A  
bill shall be deemed delivered on the third business day after  
the postmarked date unless a copy of the bill is sent by  
electronic facsimile, in which case it shall be deemed  
delivered on the same day.

**D.2** If charges under this Agreement cannot be determined  
accurately for preparing a bill, PG&E may use its best  
estimates in preparing the bill and such estimated bill shall  
be paid by NCPA. Any estimated charges shall be labeled as  
such and PG&E shall, upon request, document the basis for the

estimate used. Estimated bills shall be prepared and paid in the same manner as other bills under this Agreement.

**D.3** If NCPA disputes all or any portion of a bill submitted by PG&E to NCPA, it nevertheless shall, not later than the Payment Due Date of that bill, pay the bill in full. A dispute between either PG&E or NCPA and any Third Party shall not be a proper basis for withholding payment. Payments to PG&E of NCPA's obligations arising under this Agreement are not subject to any reduction, whether by offset, payments into escrow, or otherwise, except for routine adjustments or corrections as may be agreed to by the Parties or as expressly provided in this Agreement.

**D.4** When final and complete billing information becomes available and a charge is determined accurately or billing errors are identified and corrected, PG&E shall promptly prepare and submit an adjusted bill to NCPA, and any additional payments by NCPA shall be made in accordance with the provisions of this Section D.4. Refunds by PG&E shall be paid to NCPA not later than thirty (30) calendar days after the date of the adjusted bill. All adjustments or corrections of bills under this Agreement shall be subject to the interest provisions of paragraphs D.5 and D.6.

**D.5** Interest on an additional payment shall accrue from the Payment Due Date of the applicable bill and interest on a refund shall accrue from the date payment of the applicable

bill was received by PG&E.

**D.6** Any amount due under this Agreement which is not timely paid shall accrue interest from the date prescribed in Appendix D, Section 5 until the date payment is made. The interest amount shall be determined using the interest rate applicable to any amount due during a given month and shall be calculated using the methodology for refunds pursuant to Section 35.19(a) of FERC's Regulations, 18 C.F.R § 35.19(a). This interest rate shall not exceed the maximum interest rate permitted under California law. Interest shall be calculated for the period during which the payment is overdue or the period during which the refund is accruing interest.

**D.7** As provided in Appendix D, Section 3, if any portion of a bill is disputed, NCPA shall pay the full amount, without offset or reduction, by the Payment Due Date, however, NCPA can challenge the accuracy of a bill even if no dispute was identified prior to NCPA's payment of the bill and such right to dispute a bill shall extend to the end of the statutory period of limitations. In addition, NCPA shall, on or before the Payment Due Date, notify PG&E, in writing, of the amount in dispute and the specific basis for the dispute. PG&E and NCPA shall endeavor to resolve any billing dispute within thirty (30) calendar days of PG&E's receipt of NCPA's notice of a dispute (or such extended period as the Parties may establish). If the Parties cannot agree, either Party may

initiate dispute resolution pursuant to Section 23.

**D.8** If, after NCPA has paid the full amount of a disputed bill directly to PG&E, the results of dispute resolution pursuant to Section 23 include a determination that the amount due was different than the amount paid by NCPA, a refund by PG&E to NCPA shall include interest for the period from the date NCPA's overpayment was received by PG&E to the date the refund is paid to NCPA. Likewise, an additional payment by NCPA to PG&E shall include interest for the period from the original Payment Due Date to the date NCPA's additional payment is received by PG&E. Interest paid pursuant to this Appendix D, Section 8 shall be at the rate determined pursuant to Appendix D, Section 6.

**D.9** A Party's failure to make any payment on or before the applicable Payment Due Date shall constitute a material breach of this Agreement if that failure is not corrected within seven (7) business days after the other Party delivers written notice to non-paying Party. In such event, the Party not receiving payment shall be entitled to pursue any legal, equitable and regulatory rights and remedies it may have under this Agreement or otherwise.

## **Appendix E**

### **OPERATIONAL COORDINATION**

## Appendix E

### OPERATIONAL COORDINATION

The Parties will perform operational coordination obligations and responsibilities, which consist of but are not limited to the following:

#### **E.1 Maintenance Coordination**

The Parties shall coordinate, in conformance with their obligations to the Control Area Operator, on an annual basis, any maintenance outages of transmission facilities of their respective systems that may reasonably be expected to have an impact on the other Party's system.

#### **E.2 Underfrequency Load Shedding (UFLS)**

The Underfrequency Load Shedding Schedule shall be updated from time to time, in conformance with the obligations of the Parties to the Control Area Operator, as determined by the E&O Committee.

#### **E.3 Manual Load Shedding**

The Parties agree, in conformance with their obligations to the Control Area Operator, to implement their respective manual load shedding programs in a coordinated manner as system conditions warrant. Any modification to either Party's manual load shedding program shall be coordinated through the Parties' E&O Committee.

#### **E.4 Load Restoration**

The Parties shall, in conformance with their obligations to the Control Area Operator, coordinate the restoration of load following a system disturbance and agree to do so in coordination with the Control Area Operator when required.

#### **E.5 Records, Information and Reports**

The Parties' E&O Committee shall agree to required records, information and reports to be shared between the Parties and shall include, but not be limited to; (i) records of kW and kVar demands, and kWh for each Point of Interconnection; (ii) transmission outage information that may reasonably be expected to impact the other Party; and (iii) provide reports on any transmission outages that impacted the other Party.



**E.6 Reactive Power**

The Parties shall maintain reactive power flow at the transmission Points of Interconnection within the power factor band set by the Control Area Operator, currently of 0.97 lag and 0.99 lead. Both Parties will normally operate their respective systems to minimize kVar exchange between them. Operating conditions may require larger than normal kVar exchange between both Parties and any such exchange will be done in accordance with Good Utility Practice.

**E.7 Critical Protective Systems**

Should a Party's critical protective system(s) condition change in such a way as to possibly compromise the safe and reliable operation of its electric system and such compromise may reasonably be expected to affect the other Party, that Party shall notify the Control Area Operator, and the other as soon as is reasonably practicable to do so.

### UNDERFREQUENCY LOAD SHEDDING SCHEDULE

This schedule shall be identical with Schedule 11-Emergency Action Plan Attachment A of the NCPA MSS Aggregator Agreement, which is included by reference herein.

RESOLUTION NO. 2002-182

A RESOLUTION OF THE LODI CITY COUNCIL  
AUTHORIZING THE CITY MANAGER TO EXECUTE NCPA  
SCHEDULE COORDINATION SERVICE AGREEMENT  
BETWEEN THE CITY OF LODI AND NCPA; AND PG&E  
REPLACEMENT INTERCONNECTION AGREEMENT  
WITH PG&E AND NCPA AND OTHER CITY MEMBERS

=====

NOW, THEREFORE, BE IT RESOLVED that the Lodi City Council does hereby authorize the City Manager to execute the following two agreements on behalf of the City of Lodi:

- 1) NCPA Schedule Coordination Service Agreement between the City and NCPA; and
- 2) PG&E Replacement Interconnection Agreement with PG&E and NCPA and other City members.

Dated: August 21, 2002

=====

I hereby certify that Resolution No. 2002-182 was passed and adopted by the City Council of the City of Lodi in a regular meeting held August 21, 2002, by the following vote:

AYES: COUNCIL MEMBERS – Hitchcock, Howard, Land, and Nakanishi

NOES: COUNCIL MEMBERS – None

ABSENT: COUNCIL MEMBERS – None

ABSTAIN: COUNCIL MEMBERS – Mayor Pennino

  
SUSAN J. BLACKSTON  
City Clerk